STUDY HABITS AND ATTITUDES OF SENIOR SECONDARY SCHOOL STUDENTS

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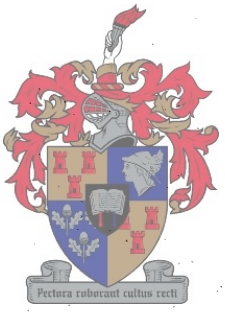
Study project presented in partial fulfilment of the requirements for the degree of



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DECLARATION

I, the undersigned, hereby declare that the work contained in this study project is my own original work and that I have not previously in its entirety or in part submitted it at any university for a degree.

"Decide to have a positive attitude, and things begin to change immediately. Possibilities become probabilities and limitations become opportunities"

(De Porter and Hernacki, 1992:90)

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Opinions expressed and conclusions drawn are that of the researcher and must not necessarily be construed as reflecting that of the University of Stellenbosch.

ABSTRACT

The aim of this study is to investigate study habits and attitudes of standard ten students in the former Department of Education and Training (D.E.T.) schools in Khayelitsha.

Brown and Holtzman's Survey of Study Habits and Attitudes, Form H, (SSHA), adapted and standardized for use in South Africa by L du Toit (1994), was administered to 1140 standard ten students. This group consisted of 411 male and 729 female Xhosa speaking students in Khayelitsha.

The 1140 students' responses were divided into two categories, viz. group 0 aged 20 years and younger, and group 1 aged 21 years and older.

The SSHA questionnaire measured seven dimensions, namely delay avoidance (DA), work methods (WM), study habits (SH), teacher approval (TA), education acceptance (EA), study attitude (SA) and study orientation (SO).

The results of this survey indicate differences between students of different sexes and ages on the attributes being investigated. From a stastistical viewpoint the results appear to be highly significant. According to F-tests, significant subgroup effects, i.e. either main effects or interactions, were found in five of the seven variables. The significant differences on delay avoidance, work methods, study habits, study orientation and education acceptance subscales for students of different sexes and ages are consistent with findings of other research on students' study habits and attitudes.

All the students' mean scores were below the 50th percentile on the teacher approval subscale, the same with the study attitude mean scores with the exception of two schools. A significant number of students externalize their motives and they have negative study habits attitudes.

Students aged below and equal to 20 years tended to have greater mean scores in work methods, study habits, education acceptance, study attitude and study orientation subscales when compared with students who are aged above and equal to 21 years.

In the delay avoidance and teacher approval subscales, students aged below and equal to 20 years tended to have lower mean scores when compared with students who are aged above and equal to 21 years.

On the students' Environmental Circumstances Questionnaire there are significant differences and the null hypothesis is rejected in four of the five aspects investigated, namely home circumstances, willingness of parents to visit the school, utilization of study time and availability of school library facilities. The null hypothesis on Study Skills questionnaire was not rejected.

The overall results indicate clear differences in the effects of study habits and attitudes on students of different sexes and ages as measured by five of the seven SSHA subscales.

Findings confirm the importance of study habits and attitudes on academic performance. The need for further application of the SSHA on black South African students was recommended.

OPSOMMING

Die doel van hierdie studie is om navorsing te doen oor studiegewoontes en houdings van standerd tien leerlinge in die voormalige Departement van Onderwys en Opleiding (D.O.O.) se skole in Khayelitsha.

Brown en Holtzman se Opname van Studiegewoontes en Houdings, Vorm H (OSGH), aangepas en gestandaardiseer vir gebruik in Suid-Afrika deur L du Toit (1994), is op 1140 standerd tien leerlinge toegepas. Hierdie groep leerlinge het bestaan uit 411 manlike en 729 vroulike Xhosa-sprekende leerlinge in Khayelitsha.

Die leerlinge se response is in twee kategorieë verdeel, naamlik groep 0, met ouderdom 20 jaar en jonger, en groep 1, met ouderdom 21 jaar en ouer.

Die OSGH-vraelys meet sewe dimensies, naamlik vermyding van uitstel (VU), werkmetodes (WM), studiegewoontes (SG), onderwyser goedkeuring (OG), aanvaarding van onderwys (AO), studiehoudings (SH) en studie-oriëntasie (SO).

Die resultate van die ondersoek dui op verskille tussen leerlinge van verskillende geslag en ouderdom ten opsigte van die attribute wat ondersoek is. Vanuit 'n statistiese oogpunt blyk die resultate hoogs beduidend te wees. Volgens die F-toetse is beduidende sub-groep effekte by vyf van die sewe veranderlikes gevind. Die beduidende verskille op die subskale vermyding van uitstel, werkmetodes, studiegewoontes, studie-oriëntasie en onderwysgoedkeuring ten opsigte van geslag en ouderdom is in ooreenstemming met bevindinge van ander navorsing oor leerlinge se studiegewoontes en houdings.

Al die leerlinge se gemiddelde tellings was laer as die 50ste persentiel op die subskaal vir onderwyser goedkeuring. Op die studiehouding subskaal was die gemiddelde tellings met uitsondering van twee skole laer as die 50ste persentiel. 'n Beduidende getal leerlinge eksternaliseer hul motiewe en hulle het negatiewe studiehoudings en gewoontes.

Leerlinge in die ouderdomsgroep 20 jaar en jonger neig om hoër gemiddelde tellings te hê in werkmetodes, studiegewoontes, onderwys aanvaarding, studiehoudings en studie-oriëntasie wanneer vergelyk word met leerlinge in die groep 21 jaar en ouer.

In die vermyding van uitstel en onderwyser goedkeuring subskale het leerlinge in die subgroep 20 jaar en jonger laer gemiddelde tellings getoon in vergelyking met die leerlinge uit die subgroep 21 jaar en ouer.

Op die leerlinge se Omgewings Omstandighede vraelys is daar beduidende verskille en word die nul hipotese verwerp ten opsigte van gesinsomstandighede, bereidheid van ouers om die skool te besoek, benutting van studietyd en gebrek aan skoolbiblioteek fasiliteite. Die nul hipotese ten opsigte van die studievaardighede vraelys is nie verwerp nie.

Die algemene bevindinge van die ondersoek dui beduidende verskille aan op die effek van studiegewoontes en houdings vir leerlinge van verskillende geslagte en ouderdomme soos gemeet deur vyf van die sewe subskale van die OSGH.

Bevindinge bevestig die belangrikheid van studiegewoontes en houdings op akademiese prestasie. Verdere navorsing met behulp van die OSGH op swart Suid-Afrikaanse leerlinge word aanbeveel.

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CHAPTER 1

MOTIVATION FOR RESEARCH, STATEMENT OF THE PROBLEM, AIM OF STUDY, RESEARCH DESIGN AND STRUCTURE OF PRESENTATION

1.1 INTRODUCTION

The rapidly changing world exerts excessive pressure on students to accelerate exploration, absorption of information and keeping abreast of new developments. Elliot, Voss and Wendling (1966:1) stated 30 years ago that 75% of academic failure in secondary schools is the result of poor study and examination habits, and that 75% of students who drop out of school had the ability to pass or to achieve better. The recent influx of families migrating from rural to urban areas has resulted in the disintegration of old traditions and standards of conduct and discipline. This has a far reaching influence on academic achievement.

Senior secondary school students of the former Department of Education and Training (D.E.T.) had a high failure rate. From 1989 to 1994 the percentage passes in D.E.T. schools in the Western Cape for the final matriculation examination were between 31,4% and 49,2%.

Tables 1a to 1f illustrate the percentage passes and matriculation exemptions from November 1989 to November 1994 for eight of the D.E.T. schools in the Western Cape Area Directorate. The percentage passes and matriculation exemptions are based on the number of candidates who wrote 6 subjects.

Table 1a: Percentage passes and matric exemptions for 1989

SCHOOL	POSITION 16	NO. OF CAND.	% PASSED	% EXEMPTIONS
1	--	--	--	--
2 & 3	--	--	--	--
4	15	284	14,4	0,7
5	--	--	--	--
6	--	--	--	--
7	1	76	84,2	35,5
8	--	--	--	--

Table 1b: Percentage passes and matric exemptions for 1990

SCHOOL	POSITION 18	NO. OF CAND.	% PASSED	% EXEMP-TIONS
1	--	--	--	--
2 & 3	--	--	--	--
4	17	261	31,0	2,7
5	--	--	--	--
6	--	--	--	--
7	1	103	76,7	35,0
8	15	148	14,9	3,4

Table 1c: Percentage passes and matric exemptions for 1991

SCHOOL	POSITION 19	NO. OF CAND.	% PASSED	% EXEMP-TIONS
1	--	--	--	--
2 & 3	--	--	--	--
4	18	342	24	4
5	--	--	--	--
6	3	256	48	13
7	1	124	82	32
8	16	194	26	5

Table 1d: Percentage passes and matric exemptions for 1992

SCHOOL	POSITION 22	NO. OF CAND.	% PASSED	% EXEMP-TIONS	% PASS SHIFT
1	--	--	--	--	--
2 & 3	--	--	--	--	--
4	3	141	72	17	49
5	--	--	--	--	--
6	2	261	81	22	33
7	1	134	95	47	13
8	4	105	62	11	36

Table 1e: Percentage passes and matric exemptions for 1993

SCHOOL	POSITION 28	NO. OF CAND.	% EXEMP-TIONS	% PASS SHIFT
1	5	21	4,76	-22,35
2 & 3	--	--	--	--
4	3	142	14,08	2,35
5	22	147	2,72	24,49
6	2	324	31,48	4,07
7	1	120	40,83	-3,13
8	11	169	8,28	0,03

Table 1f: Percentage passes and matric exemptions for 1994

SCHOOL	POSITION 36	NO. OF CAND.	NO. OF CAND. PASSED	% PASSED	NO. OF EXEMP-TIONS	% EXEMP-TIONS	% PASS SHIFT
1	6	95	70	73,7	21	22,11	2,27
2 & 3	32	428	75	17,52	11	2,57	17,52
4	2	150	130	86,7	50	33,33	12,05
5	20	175	77	44	21	12,00	19,51
6	3	245	198	80,81	55	22,45	-3,76
7	1	159	147	92,3	74	46,54	0,63
8	13	203	122	60,09	36	17,73	12,75

Tables 1a - 1f show the statistics of the target population in the 8 secondary schools in Khayelitsha, in the Western Cape Area Directorate, and illustrate in some schools low pass percentage of matric candidates. This, however, only reflects the results of the final school year, and not the situation over 12 years' schooling where a substantial percentage of students leave school without a much needed education and scholastic background.

1.2 MOTIVATION FOR RESEARCH

The drop-out and failure rates of black students in the Western Cape Area Directorate is a source of great concern for teachers, parents, students and the community.

Effective study habits and a positive attitude are basic requirements for academic achievement, both of which are, according to general impression, to a great extent lacking among black students in Khayelitsha. Botha and Cilliers (1993:56) refer to the National Education Conference, for addressing crisis in education, held in Cape Town in 1992 and state that:

- half of all African children who enter school do not pass standard 5 (Grade 7) in seven years.
- only one in 1000 African students who pass standard 10 (Grade 12) obtain a higher grade pass in mathematics.
- the standard 10 pass rate for Africans has dropped from 52% in 1989 to 36% in 1990.

A number of reasons have been advanced for the high drop-out and failure rates among black students, ranging from socio-economic factors to school policies. Teachers are confronted with students who could be described as environmentally disadvantaged: children not getting enough nutrition, stimulation, security, love and support. The effect of such an environment influences normal development adversely. As a result these students are, according to Botha and Cilliers (1993), often lagging in areas such as English competency, mathematics and general thinking ability across the curriculum.

Malan, Ackermann, Cilliers and Smit (1996:58) maintain that the major problems of these students' studies are negative home circumstances, language comprehension and poor study skills.

There are, however, many other reasons why students do not realize their true potential. One of these reasons could be that many students are not motivated. According to teachers lack of commitment to study regularly, and their failure to utilize existing opportunities and resources (in the field of study and learning) result in poor academic performance and a high failure rate. Despite the high drop-out and failure rates no study has been undertaken on study habits and attitudes of black Khayelitsha students using a standardized measure.

1.3 STATEMENT OF THE PROBLEM

1.3.1 Introduction

Students are not often aware that it is within the individual's power to determine one's own future. They expect teachers to spoon-feed them academically and make minimal personal effort to learn independently. They have no fixed study goals or plans, and have low expectations about their scholastic achievement. As a result they have no sense of commitment to do homework regularly, and often leave school after lunch breaks.

A significant number of students drop out of school before standard nine, which could be among other things attributed to ineffective study habits and negative attitudes. The lack of academic qualifications prevent them from securing suitable jobs, which causes them great frustration.

In the academic and traditional sense, there are students who do not have a positive set of values, norms or standards for learning and studying, that is they do not have either short or long-term goals. Learning is not viewed by these students as a moral and essential issue. In general their culture and ethos of learning do not place a high value on educational matters.

The most esteemed accomplishments are those that are not seen to result from concerted efforts. Success which is easily attained is highly regarded. Parents and students lay more emphasis on ability than on effort as a primary means to effective learning.

This lack of motivation could be partly attributed to the system of government in which students and parents had no say. The change of environment from a predominantly agrarian to an industrial economy has had an enormous impact on the lives of urban families. Parents or relatives (mostly males) work in mines, on farms or in cities which are far removed from home. Rural and urban circumstances also differ vastly in terms of situation of school, payment of school funds, uniforms and availability of space. According to Ramphele (1993:1) schools in urban areas lack physical, psychological, political and intellectual space, all factors which are regarded as essential to academic progress. Ramphele (1993:1) also emphasizes that this lack of space is also rife in urban homes where there are 2,8 people on average to a bed, and personal space is limited to 1,8 square meters per person.

The psycho-social circumstances in urban areas are coincidentally equally not conducive to learning. Parental involvement is superficial, limited, with little time and energy invested. Learning is not taken seriously, and there is a lack of positive environmental influences from significant others. These societies are so deprived that only the essentials for survival, such as food, shelter, water and electricity are given any consideration.

Parents in general are convinced that time spent at school and doing classwork is sufficient to equip their children to pass tests and examinations and thereby qualify for matriculation certificates.

It is clear from the above that regular and serious studying is not regarded as a priority by students or their parents. Advice on school matters is therefore often ignored as unimportant.

1.3.2 Specific problem

Subject teachers are complaining that their students' academic achievement is not satisfactory. The teachers question the ability and motivation of the students to study on their own. Teachers perceive many of the students as inattentive, inefficient and ineffective in the completion of classroom and homework tasks.

In urban areas students' scholastic progress is affected by the scramble for limited resources, such as housing, employment, funds and trained personnel.

Students often complain that the available space in which to do their homework is not adequate, and they are therefore not sufficiently prepared for tests and examination, which culminates in a high failure rate.

Lack of discipline, delinquent behaviour and adjustment problems lead to students' inability to self-actualize their potential, with the result that they end up being drop-outs. Because of poor home circumstances, e.g. inadequate diet, insufficient sleeping provision and lack of medical care, they are not able to concentrate on school work. In addition teachers do not provide for students to take initiative or work independently on tasks, which causes students to become bored.

The study habits and attitudes of students, being the pivot of academic achievement at school, should be researched and investigated to determine the extent to which it influences examination results.

1.4 AIM OF STUDY

General aim

- The aim of the study is to investigate study habits and attitudes of standard 10 (Grade 12) Khayelitsha senior secondary school students in the Western Cape Area Directorate of the former D.E.T.

Specific aim

To conduct a research about sex and age related differences on students' study habits and attitudes.

1.5 FIELD OF STUDY

The study is primarily done in the pedagogical field, and can be more explicitly classified as a psycho-educational study.

1.6 RESEARCH DESIGN

The study entails the following research design:

1.6.1. A literature study directly concerned with learning, studying and the development of study attitudes.

1.6.2 An empirical study of standard 10 (Grade 12) senior secondary school students in Khayelitsha to make a survey of their study habits and attitudes.

1.7 STRUCTURE OF PRESENTATION

- Chapter 1: Aim, motivation and structure of presentation.
- Chapter 2: A literature study to investigate learning.
- Chapter 3: Method of research.
- Chapter 4: Research findings and interpretation.
- Chapter 5: Discussion, conclusions, recommendations and limitations.

CHAPTER 2

A LITERATURE STUDY TO INVESTIGATE LEARNING IN THE SECONDARY SCHOOL SETTING

2.1 INTRODUCTION

In this chapter factors that influence scholastic achievement will be described, with special emphasis on theoretical issues which are relevant to students' study habits and attitudes specifically in the classroom situation. Effective learning is influenced by many factors, such as learners' academic ability, potential, individuality, family circumstances, social circumstances, study habits and attitudes. These factors will be investigated in this chapter.

2.2 PERSPECTIVES OF LEARNING

There are many diverse ideas and research findings about learning.

Learning theorists such as Pavlov and Skinner (in Gagné, 1985:9) are of opinion that if the right stimulus is presented, or the appropriate response reinforced, behaviour is changed because of the association. For the learning theorists such as Pavlov and Skinner the totality of the human organism's being is no more or less than the sum of the mechanistic and reductive associations that have come as antecedent conditions, either genetically or experientially.

In contrast, some cognitive theorists such as Piaget (1973:2), and psychoanalytic theorists such as Erikson (1974:92), believe that the totality of the human organism's being is more than the sum of mechanistic and reductive associations. Cognitive theorists place emphasis on the individual's perception of experience and the meaning that the learner gives to this experience. For cognitive theorists all experience is unique

to the individual. Piaget maintained that all organisms seek to organize their environment.

Kimble (in Kiminyo, 1961:6) has defined learning as "... a relatively permanent change in behaviour potentiality which occurs as a result of reinforced practice", for example behaviour which is learnt through observation (modelling).

Vygotsky (1979:131) has suggested a definition of learning that demands authentic dialogue, real human communication, and a reciprocal relationship between learner and teacher that is rooted in equality, respect and trust. In this relationship the teachers' task is to lead the student into the zone of proximal development which is a level just ahead of what students can manage on their own. Vygotsky (1979:88) maintains that, "Human learning presupposes a specific social nature and a process by which children grow into the intellectual life of those around them".

This demands that the student should be given practical learning experience so that he can internalize the learning experience and develop his potential to the best of his ability.

Feuerstein, Rand, Hoffman and Miller (1980:16) describes learning as the generation of, or change in the mental structures after exposure to, or experience with impinging stimuli as distinct from changes incurred through maturation. He theorizes that the variation among students in acquiring mental structures can be attributed to differing rates in the efficiency of students in responding to stimulus situations. He postulates that cognitive processes that were ineffectively or seldomly used, or even absent altogether, can be enhanced, modified and/or established.

Feuerstein et al. (1980:16) argue that the more and the earlier the student is subjected to Mediated Learning Experience (MLE), the greater will be the student's capacity to efficiently use situations and overcome emotional problems. MLE is a process whereby an interposing individual mediates the world to the student by intentionally transforming, selecting, scheduling, framing, grouping and segregating stimuli, thus providing the

student with modalities of selecting, focusing and grouping objects, and events. Neurological and physiological factors can, however, prevent effective mediation. Feuerstein furthermore contends that with the elimination of genetic and organic impairment, the student is open to modifiability at all ages and stages of development.

According to Van Eldik (1990:20), Frankenstein describes education as a liberation of the individual's potential, part of which may never have reached the level of actuality; and that education is also the power whereby lost or impaired dispositions may be restored through the intervention of a true educator who then in fact becomes a mediator in the learning process.

Frankenstein (in Van Eldik, 1990) mentions how certain life conditions almost inevitably produce an externalized life-style that may be detrimental to the intellectual development of many children born into poverty, neglect or cultural ambiguity. These children are destined to fail and to function beneath their potential abilities. This condition Frankenstein (in Van Eldik, 1990:20) calls "secondary retardation".

Bruner (1966:72) mentions a similar type of intervention in learning, in which the teacher interacts to build supports that lead the students toward better learning.

Schunk (1989:15) demonstrates the complexity of the process of learning which entails instructional, social and learner variables. He emphasizes that for effective learning to occur it should be borne in mind that these three variables are intertwined and should not be treated in isolation.

A clear distinction for many laymen in this regard was made by Bodner (1986:873) when he declared that, "... teaching and learning are not synonymous, we can teach and teach well without having the students learn". This view is supported by Dewey (in Bartoli, 1990) that for effective learning to occur there should be a relationship of collaboration and partnership in an environment that is conducive to learning whereby the teacher acts as a catalyst and liberates the learner in the learning process.

Gagné (1970:3)) in his definition of learning does not mention the role of reinforcement, but instead states that the child could learn any task as long as he is in possession of the prerequisite intellectual skills. As long as the child follows appropriate instructional procedures, he will be able to learn. Further, Gagné (1970:35) distinguishes eight levels of learning, namely signal learning, stimulus-response learning, chaining, verbal association, discrimination learning, concept learning, rule learning and problem solving.

For problem solving Gagné (1970:222) lists three conditions. Firstly, the learner must have a goal, that is There should be contiguity of the rules that are to be put together to achieve solution. The learner must keep in mind the essential features of the responses that will be the solution before he arrives at it. Secondly, that the learner must be able to recall relevant principles previously learnt. Thirdly, that the recalled principles then be combined with verbal instructions to form a new principle; and that the solution be arrived at suddenly as if by insight.

Mangieri and Collins (1992:90) say that "The primary reason that at-risk students have trouble learning after 3rd grade is that they do not understand understanding". To overcome the understanding deficit they have recommended general thinking activities to be undertaken in small group settings so as to promote group interaction and sharing of ideas. Piaget, Bruner and Vygotsky (1979:89) agree that when language is learnt, cognitive development changes. The development of this sophisticated symbol system makes possible the complex reasoning that is characteristic of humans, and that is so important to the learning process.

The Oxford dictionary (1987:859) defines study as "... devotion of time and thought to getting knowledge of, or to a close examination of a subject, especially from books".

Webster's dictionary defines study as "... a process of acquiring by one's own efforts knowledge of a subject" (1958:2503). These definitions presupposes that the student should use all his appropriate skills to solve a problem. It is assumed that he has already mastered the basic reading and thinking skills, which in fact is contrary in many cases to

reality. Students should therefore acquire the necessary reading and thinking skills so that they can respond to their rapidly changing and increasingly complex world of learning. Prerequisites for effective learning are the existence of basic knowledge of the language of instruction, availability as resources of text books and library facilities.

From the above explanations and definitions the need for effective study habits and attitudes in a society and community that is disadvantaged and in transition is extremely crucial.

Students' work methods and how they accept education are vital to effective learning.

Bamman, Hogan and Green, (in Herber, 1974:2) suggests that, "... the whole body of reading skills might ... be classified as part of study skills, ... the term study skills refer ... to the application of reading skills to specific study tasks ...".

It is therefore essential that reading skills be used as one of the points of departure in teaching students study habits and problem solving skills. This will help students to develop deeper and more meaningful understanding by examining real life situations, which could improve their attitude and study habits.

Academic difficulties are a common experience for many black students, and a wise procedure for improving scholastic progress may be to focus first on positive study skills, habits and attitudes. Castagna and Codd (in Hurlburt and Gade, 1985) describe how a counsellor can focus on motivational and personal problems which may be attributed to poor study habits and attitudes.

Robinson (1993:12) emphasizes that students should accept responsibility for their achievement. Responsible students know their roles and obligation concerning their school work.

De Porter and Hernacki (1992:43) support this viewpoint by stating that it is possible to control the course of your life, including academic performance, and that students should learn to change their negative attitudes and adopt an "I can" attitude.

Interest in learning is only brought about when students become actively involved in the development of ideas, and do not memorize without insight details handed to them by teachers. Active participation and involvement in studies are determined by the level of motivation, study habits, work methods, delay avoidance, teacher approval and study orientation, all of which are crucial to academic achievement.

Vygotsky's (1979:86) definition of learning will be accepted as a framework in this study. This definition emphasizes the importance of the social environment in the development of cognition, together with directed learning in which the adult plays an important role. In order to enhance students' cognitive development, the teacher as an important adult should establish the students' actual developmental level. This can be done by determining two functional levels, namely what the student can do with or without adult guidance (intervention). The difference between these two levels of functioning is the zone of proximal development.

When the student is working with an adult, the potential development under optimum circumstances, that is learning with a competent, nurturing mediator, becomes observable. Vygotsky (1979:86) states that "... when a student is working independently, his actual development becomes evident". The adolescent learner as unique individual person is therefore the main participant in determining his achievement.

2.3 THE ADOLESCENT LEARNER AS A PERSON

The adolescent learner is an entity, and not the sum of different existential parts, but an inseparable totality of a variety of integrated characteristics. These characteristics can be categorized into three dimensions, namely physical, psychic and conative. Hence it can be said of an adolescent learner that he is an inseparable totality of physical, psychic and

conative characteristics. The learner is a multidimensional physical, psychic and conative entity living in time and space dimensions where existential times the present, future and the past together with relationships with others and his creator are important.

Although, on a theoretical basis the physical, psychic and conative dimensions form an inseparable entity they will be separated for discussion. The adolescent learner nevertheless is always a totality.

2.3.1 Physical dimension

According to Du Preez and Basson (1987), the physical body is the medium of existence. The adolescent's body provides a medium for contact, exploration and orientation with the world. He transcends his situations in the environment. Hence it is important that in order for effective learning to take place, the child should always have a sound mind in a sound body. The baby in its development first discovers its hands and feet, and on its way to adulthood makes discoveries by means of his body, which serves as a bridge towards self-actualization.

However, one should not lose sight of the fact that the body contains vital biological organs, for example the central nervous system which controls all human functions and activities. In this regard a totality perspective on the adolescent should always be kept in mind with a view to his physical, psychic and conative characteristics. The body does not function in isolation or separately from the psychic and conative dimensions. It reflects the quality of the adolescent learner's psychic and conative life.

2.3.2 The psychic dimension

Du Preez and Basson (1987) state that this dimension has two components, namely the cognitive (intellectual) and the affective (emotional). Cognition refers to the person's knowledge and the knowing relationship he has with his world. The adolescent learner

does not grow in his environment in a deterministic manner like an animal, but he transcends his world and assigns to it human and conative meaning.

2.3.2.1 Cognitive component

The adolescent learner is endowed with a mind, or intellect. This endowment, according to Sonnekus (in Du Preez and Basson, 1987), places him in an understanding relationship with his world.

Intelligence has bearing on the ability to think, to interpret, to make associations, to analyze and to synthesize. This ability develops in different degrees in individuals. In this manner intelligence is sometimes related to the tempo of intellectual processes, from which concepts such as flight of ideas, insight or understanding, and somebody is "slow in understanding", have originated. Intelligence is thus a powerful force which enables the adolescent learner to overcome situations, to conquer his world and to open up new horizons.

Wechsler (in Du Preez and Basson, 1987) views intelligence as a global capacity of the learner to think rationally, act in a goal-directed manner, and to handle his environment successfully. This means that intelligence is not an isolated entity, and is not the sum total of different thinking processes, but a whole or gestalt phenomenon which involves the adolescent in his totality as a three-dimensional being as he interacts in time and space.

According to Du Preez and Basson (1987), the cognitive component includes the following phenomena: perception, observation, proposition, transposition, memory, attention, figure symbolism, relations, logical reasoning, programming, problem solving, insight and fantasy. These phenomena do not function orderly and in isolation. Although they exhibit a semi-outonomous character, they are dynamically interrelated.

In such a structure or system a horizontal differentiation can be made between intake transmission, integration, feedback transmission and combination (feedback and intake). Vertically three hierarchic functioning levels can be identified, namely the sensory-motoric, the perceptual-imitative, and the conceptual-symbolic levels.

Cognitive processes are mental actions which are used to manipulate information. Students' cognitive systems have the potential to process various kinds of information found in educational curricula, together with the information that teaching provides to help them achieve educational objectives.

This is a potential that most students and as unique individuals they have the final choice to use it effectively. Their habits and attitudes are important factors in the optimal use of cognitive abilities in learning situations.

Long-term memory is made up of a large number and a variety of schemata, concepts, ideas and facts against which incoming information is compared, encoded and stored. Storage and recall require categories which are clear for an effective cross-referencing system.

When the incoming information is coded, defining characteristics are identified and similarities and differences are analyzed, which determine the individual's cognitive style.

Recall could be done in a broad, leisurely, narrow, or fast manner, and it entails searching the stored categories.

2.3.2.2 The affective component

The adolescent learner is not only a physical, rational and a thinking being. He is also an emotional being. He has gained the emotional experience through his communication with his world. This emotional experience is a universal characteristic, because it occurs in all forms of human behaviour, be it verbal, social or aesthetic, although feelings

(emotions) in different adolescent learners occur in different degrees of intensity and are expressed differently. The adolescent learner's feelings (emotions), disposition, desires, rage and aspirations are at times consciously or unconsciously subdued or completely repressed. The adolescent learner's previous experience, the degree of intensity and evaluation of the feelings determine how he will approach a specific situation. Garbers (in Du Preez and Basson, 1987) says that in all forms of behaviour and experiences the emotional aspect is always present and gives meaning to it. The recall by the learner of successful learning situations enhances his habits and attitudes and motivates him to learn. The physical-psychic dimension is actually meaningless if it is not put in perspective with the conative dimension.

2.3.3 The conative dimension

The conative dimension, unlike the physical and psychic dimensions, has a less visible, latent and profound "person's core" which is the seat of norms and values which belong to it alone. Oberholzer (in Du Preez and Basson, 1987) declares that this is a remarkable fact in human existence, in comparison for example with animal existence. The adolescent learner as a human being is ever searching for his existence, where the search for himself still remains as important as existence itself. What makes an adolescent learner a motivated learner, is his conative dimension.

It is from the conative dimension in the adolescent learner's existence that his sense of responsibility arises; that he chooses and decides that his physical-psychic life be meaningfully directed. Learning habits and attitudes therefore are greatly influenced by the individual learner.

The conative dimension has a strong moral character, and it is also the source of the adolescent learner's intention. It is because of the conative dimension that the adolescent learner can transcend his world.

The adolescent learner is active and intentional about his world, unlike an animal which is passive and instinctive. This is emphasized by Stander (in Du Preez and Basson, 1987). He states that things do not simply happen with the adolescent learner, but he initiates things. He is not a passive observer of his own development, but an active participant of his own present-future career and lifestyle.

In the classroom situation the adolescent learner's intention to learn plays a crucial and important role in academic achievement. High academic achievers are normally intrinsically motivated with positive learning habits and attitudes. Thus teachers can help students by evoking interests in their school work. However, the student himself makes the final decision in this regard.

2.3.4 The adolescent learner in time dimension

The here and now situation of the adolescent learner is influenced by existential times the past, present and future (Du Preez and Basson, 1987:43).

The learner is educated by parents and teachers and is aware of the cultural-historical milieu in which he grows up.

The past is important to the learner because it moulds and influences the learners' habits and attitudes which directs his personal history of relationships. The past to a certain extent determines the learner's self concept which gives direction to the learners future vision.

According to Du Preez and Basson (1987:44) the unconscious past of the adolescent's memory content often has a far greater influence on the behaviour of the learner than people often realize. The life of the adolescent at the present moment whether he is at home or in school busy with learning activities often brings an amount of tension between the existential times, the past, future and present. Whilst learning the adolescent could become insecure and begin to act hesitantly and reluctantly and because of fear the

learning situation could be negatively affected. It is therefore, of crucial importance that the present school learning situation should be an optimal learning situation. Teachers should always keep in mind that the attitudes and habits of their students are part and parcel of teaching and education.

Attitudes and habits acquired from the past affect the school, learning, studying, teaching and teachers. Every student has a task to maximize his potential and become an independent and responsible person.

2.3.5 The adolescent learner in relationships

According to Du Preez and Basson (1987:35) the adolescent learner is basically a social being and as such is in relationship with his environment, himself, significant others, the school, family, community and his Creator.

Du Preez and Basson (1987), state that the body is also a means of communication. This important function of the body is emphasized by the important anthropological principle that the adolescent learner is essentially a social being. The adolescent learner is by nature gregarious and co-exists with other people. The adolescent learner is an active participant in what happens around him, and it is through exploration that he conquers his world.

There are three types of adolescent learners' relationships to be discussed.

I-IT relationship

This relationship represents both space and time. The adolescent learner should always be seen in his basic situation in context with his world. Because he is always a learner in a determined spatial situation with his world, a learner in a determined part of the world, a learner in determined land or region and a learner in a determined nation. The personality, habits, attitudes, values and interests give an indication of nature and mood

of existential times in which the adolescent learner lives. Significant others when relating with the learners should not handle them in isolation of their environment.

I-YOU relationship

In this relationship the I and You belong together. The adolescent learner is basically physically, socially, psychologically and spiritually a person among other persons.

Rogers (in Burns, 1983:155) refers to a positive force, "the innermost core of man's nature, the deepest layers of his personality, the base of his 'animal nature' is basically socialized, forward moving, rational and realistic".

Without the support of others in particular his teachers the adolescent learner would find it difficult to self actualize his potential.

Tryon (in Garrison and Gray, 1955) states that if we were to examine the major developmental tasks of late childhood and adolescence, it would become apparent that they can only be satisfactorily achieved through interaction with the peer group. It is in this group that they learn about the social processes of their culture. They clarify their sex roles by interaction with peers and learn about competition, co-operation, social skills, values, and purposes by sharing common experiences.

I-Creator relationship

On this dimension the adolescent learner is viewed as a person who believes in his Creator. Holistic teaching approach should be adopted in order not to separate the learner's body and soul.

2.4 LANGUAGE IN THE LEARNING SITUATION

2.4.1 Introduction

Adolescent learners are not restricted by what they see or hear, nor by the problem at hand. They can imagine the conditions of a problem and devise hypotheses about what might occur in different situations. During adolescence learners are capable of different forms of logical thinking. Language plays a key role in the learning situation.

2.4.2 The role of language in thinking

According to Gage and Berliner (1988:108), Piaget, Bruner and Vygotsky agree that language contributes to the development of thought. The view presented here is that of Piaget, Bruner, Vygotsky and Chomsky.

Piaget's position is that language does not effectively contribute to the development of thought (operational intelligence) until the beginning of formal operations. Development of logical operations is not closely related to language until the stage of formal operations is reached.

In the formal operational stage, according to Gage and Berliner (1988:116), which develops between the ages of 11 to 16, students are capable of logical thinking about abstractions, that is with the "possible" as well as the "here and now". They can think scientifically, that is draw conclusions, offer interpretations and develop hypotheses. The adolescent learner has the ability to determine causal relationships. Both his thinking and his language are scientific, mental and verbal, and he uses "if ..., then ..." statements. According to Piaget's theory, very young children are not capable of this kind of scientific thinking. Only through experience and maturation does this kind of reasoning develop. The adult logic that teachers have may be beyond the capabilities of young children. There is evidence of continued change in the complexity of adolescent thinking

through age. One should therefore consider the level of maturity we expect from our students in logical and scientific thinking.

The adolescent learner is not restricted to concrete problem-solving strategies. The adolescent learner can devise hypotheses about what might logically occur under different combinations of factors. In imagining the conditions of a problem the adolescent takes into account the existential times, the present, past and the future. This hypothetical deductive approach to reasoning is one of the major characteristics of the formal operational stage. Students begin to develop an organized system of rules that they employ in their problem-solving tasks.

This stage is a product of both heredity and environmental factors. Piaget believes that by puberty the neurological basis for future cognitive growth has been laid. However, environmental factors such as education, family and peers continue to influence the neurological structures which are essential for cognitive development.

By the end of the formal operational period the adolescent is capable of all forms of logical thinking.

It is necessary to know the student's background, their past experience, and to have some indication of their individual cognitive development. The learning situation needs to be slightly ahead of this development so that the student is motivated to resolve the conflict which this causes, but the problem must not be so far beyond their cognitive development that they are unable to achieve success (O'Connell, 1973).

Bruner (1966:11) believes that children move from enactive, iconic to symbolic stages of representation. In the symbolic stage the student's understanding through action and perception gives way to understanding the world by means of symbolic systems. Language, logic and mathematics come into play. With age and experience the symbolic system usually becomes dominant.

McNally (1974:67) says that knowing is not only a passive registering of images of the environment, but rather an interactional process by which environmental aspects are transformed and assimilated in relation to the particular structures possessed by the individual.

Operative knowing denotes the transformation of objects, situations and events so that they can be assimilated into current general operational structures, while figurative knowing relates to configuration of specific objects, situations and events.

Progressive increase in the capacity and influence of operative activity or operative knowing gives rise to the development of intelligence, with figurative or configurational knowing playing a subordinate role.

Learning, according to McNally (1974), is concerned with the contents of the things we know. It is concerned with specifics. This requires special experience, and what we know is dependent on where we spend most of our lives. In Piaget's view of cognitive development, according to McNally (1974), intelligence is best viewed as a general instrument of knowing. Intellectual development, or the general instrument of knowing, depends on the provision of suitable experiences at the appropriate time.

According to McNally (1974), Piaget is in favour of activity methods. He is not so much concerned with what is taught or "transmitted", as he is with how it is taught.

Luria (1973:307) emphasizes the role of language in thinking as follows, "... that is why speech, as a means of communication, has at the same time also become a mechanism of intellectual activity - a method for use in operation of abstraction and generalization and a basis for categorical thinking".

Vygotsky (1979:88) attributes a special role in cognitive development to the social environment of the child. He notes that children begin learning from the people around them, their social world, which is the source of all their concepts, ideas, facts, skills and

attitudes. The child's psychological processes begin as social processes, patterned by his culture. Vygotsky's emphasis on the role of adults in influencing the cognitive development of children is probably the origin of Feuerstein's ideas about mediated learning. In this view cognitive development should be improved when students work co-operatively or collaboratively with adults and other students.

Chomsky (1993:29) is of opinion that every normal child has a biological or innate mechanism particularly designed for the acquisition of language. In his view, according to Gage and Berliner (1988:130), the nature of language and its complexity cannot be explained merely on the basis of word association. This rationalistic (innate or nativistic) view holds that children's minds contain a system of common preconceptions or ideas about the formal nature of language through which the informal linguistic data of our speech community are filtered. According to Bowd, McDougall and Yewchuk (in Mwamwenda, 1990:117), "The child is born with a language acquisition device (LAD) which permits the interpretation of language it hears and the generation of an infinitive number of sentences".

Chomsky (1972:125) postulates that there are two important aspects of any language, namely surface and deep structure. Surface structure is no more than the words used to express whatever is to be conveyed, whereas deep structure is the message expressed via the surface structure.

Piaget (1950:163) notes that the role of the peer group is extremely important for social awareness and co-operation in language, thought and moral judgement of the child. McGrady (in Lerner, 1971:44) states that "... It has been said that language is what makes man. It follows that a language deficit may make man less than man". Thinking stimulates the development of language. Thinking and language improve the adolescent learner's dialogue with his world.

2.4.3 The role of language in D.E.T. schools

The needs of educationally disadvantaged black students in South Africa are particularly complex. Local research has indicated three major areas of concern, namely cognitive deprivation, language inadequacies and resulting scholastic backlogs (Botha and Cilliers, 1993).

The question, according to Gage and Berliner (1988:155), is really whether the surface differences in the structural system of the language of non-standard English speakers have educational and economic implications. This is a social issue, not a cognitive one.

The number of non-English-speaking school-age children in D.E.T. schools is significantly high. By the time the children come to school, they have mastered most of the complexities of their mother tongue which is one of the official black languages. The complexities of English as the medium of instruction must however, be considered as a significant factor in the learning situation of educationally disadvantaged black students.

The primary factors in the growth of bilingual education, according to Gage and Berliner (1988:135), are: (a) the intense cultural shock experienced by non-English-speaking youngsters on entering school, and (b) the academic retardation that takes place because class-time is used to teach English, while the child's already mastered and regularly used language is ignored as a medium for teaching reading, social studies , science and other subjects.

Time is wasted when teachers try to develop concepts through verbal means. Symbols get their meaning from the operative structure. Knowing occurs best in young children through contact.

In concept development the child should challenge his operative knowing. This will be facilitated by considerable advance in operative rather than figurative knowing. McNally (1974) says that symbolic behaviour does not become operative until the formal level of

thinking is reached. He argues that concept development proceeds best where the operative aspects of knowing are challenged, and this implies active involvement of the learners in the learning situation.

The qualitative differences in answers that children give depend on operational knowing or logical structure that has been applied. The fact that a child understands a symbol means that in addition to a figurative aspect there is also an operative one which gives meaning.

A fourteen-year old child's operational structure is at the formal operational level. The meaning he gives to questions is qualitatively different from that given by a six-year old child. The fourteen-year old is capable of applying superior operational intelligence with high level of operative or meaning aspect. This cannot be generalized to children in the D.E.T. schools because the formal learning of English was done as a second language and not as mother tongue.

The qualitative differences in children's answers and interpretations are attributed to progressive availability of operational thought and the increase in the operative aspect of knowing over the figurative aspect.

One can assume that the meaning that is given to facts varies with the developmental level of each child. The availability of operational structures and the framework within which knowing takes place in each child facilitates the answering of questions.

By the time the black child reaches the age of seven, his cultural and language patterns have been established. Until this time he is likely to speak only his own local dialect. The child then enters a foreign setting, which is a western classroom, and it is therefore not surprising that a large percentage of black youngsters never reach standard six (Grade 8).

The adolescent learners' lack of general and specific concepts in the foreign language negatively affects their academic achievement.

In most black schools in South Africa and in D.E.T. schools in particular, the mother tongue has been used as a medium of instruction up to standard 2 (grade 4). From standard 3 (grade 5) the majority of disadvantaged children receive their schooling through the medium of English, which could be regarded as a foreign language to them (Mouton, Odendaal, Botha, Claassen, Starsheim and Vorster, 1990).

2.5 ADOLESCENTS' DEVELOPMENTAL TASKS

2.5.1 Introduction

Havighurst (1974) states that in a given society there are certain roles expected of individuals at different stages of life. The processes of growing to fulfil such roles have been termed developmental tasks. The adolescent stage is characterized by physical and emotional development. Adolescence is a holding period in which education, motivation, and waiting are the major steps faced by the adolescent. The adolescent feels less need for security of parental supervision and protection, but according to Erikson (1974:131) most adolescents experience aimlessness and uncertainty about themselves, which he calls identity confusion.

Study habits and attitudes are important in the learning situation and the developmental stages of the adolescent learner are therefore major factors to be considered in academic achievement.

2.5.2 Development of independence

Although parents in general want their children to become independent adults, it is not always easy for them to allow their adolescent children the opportunities to test their striving for independence. Hence, adolescent boys and girls often rebel when parents

assert their authority, and become dependent children when parents want them to be responsible adults. The teacher could help adolescent learners to understand how social change causes children to have different experiences from those of their parents, which lay a basis of misunderstanding between the generations. Teachers, according to Havighurst (1974), should assist parents to understand this problem and to solve it constructively.

2.5.3 Development of socially responsible behaviour

The adolescent, according to Havighurst (1974), learns to be a participating member of his own age group. He sacrifices some things so that he could be rewarded by social approval. In order to do this the adolescent develops an ideology that is in harmony with the values of his society. This in turn facilitates the development of loyalty and serves as a basis for the adolescent's socially responsible behaviour. On the other hand, if there are disturbances in the ethical quality of their society, adolescents withdraw, which leaves them without an ideology, and uncommitted to socially responsible behaviour. Community based activities should therefore be made part and parcel of the school curriculum.

2.5.4 Choice of and preparation for an occupation

The desire to grow up and to become economically independent is deeply embedded in most students. According to Garrison and Garrison (1975:13) the most convincing symbol of growing up is the adolescent's ability to earn an income. The adolescent therefore needs to be sure of his ability to function as an adult. The school could help students choose an occupation in line with their abilities and interests.

2.5.5 Development of moral concepts and values as guidelines for behaviour

The adolescent's main task is the achievement of an identity. This entails the selection of and preparation for a career, as well as the establishment of a socio-politico-ethical

ideology. Many adolescents, according to Garrison and Garrison (1975:13), have a great interest in philosophical, political and religious problems. They become readily engaged in discussions of general moral questions. The school should make the student feel that his moral convictions are important, and thus help the student to acquire a worthwhile combination of expressive and instrumental values which they can apply in their personal and civic lives. Unless the adolescent develops some standard or system of values he will be without a stable guide to help him make decisions.

2.5.6 Acceptability and adjustments to groups

Havighurst (1974:45) states that "... the most powerful influence during adolescence is the power of group approval. The adolescent becomes a slave to the conventions of his age group". Despite their conformity adolescents should maintain a balance between involvement and individualization. If the adolescent achieves this task, he develops a reasonably good social adjustment throughout life in other developmental tasks of adolescence. Schools should therefore be used as laboratories for the learning of social skills. This could be achieved by introducing informal non-academic activities such as clubs, parties, school prefects, parent-teachers and student associations, athletics, music and art. Adolescents should be taught democratic political procedures. They should have experience in handling as much of their own affairs as possible. Students should learn to work together on their own responsibility.

2.5.7 Conclusion

The developmental tasks of adolescence are highly personalized experiences which help the adolescent define himself to himself as a person, and thereby help him to develop a predictable self.

Mussen, Conger and Kagan (1974:556) conclude that "... meaningful social and psychological maturity cannot be achieved unless the adolescent is also able to master successfully a number of critically important, interrelated developmental tasks. He must

gradually achieve independence from his family; adjust to his peers, without being dominated by them, and decide on and prepare for a meaningful vocation".

2.6 SELF-CONCEPT AND THE ADOLESCENT LEARNER

2.6.1 Introduction

The self is the sum of all that a person can consciously call his own. It is a framework that each person consults in order to route the course of his daily activities so that he could decide the direction of his life. Motivation is concerned, amongst other things, with the energizing of behaviour and the direction that it gives to behaviour. In this section attention will be given to aspects that have relevance for classroom learning and behaviour, with particular reference to the maintainance and enhancement of self-concept.

Self-concept, study habits and students' attitudes are generally regarded as central to academic achievement, and because of the effect which teachers have on these attributes they are selected as focus of this study project.

2.6.2 Learners' beliefs, interest and values

The maintainance and enhancement of the perceived self is the motive behind all forms of behaviour. Purkey (1970:7) describes the self as a "... complex and dynamic system of beliefs which an individual holds true about himself". It is a built-in advantage for the teacher, for it is a force that comes from within each student. According to Combs and Snygg (in Purkey, 1970), the self is an individual's basic frame of reference, the central core, around which the remainder of the perceptual field is organized. In this sense the phenomenal self is both product of the individual's experience and producer of whatever new experience he is capable of.

According to Gage and Berliner (1988), students' behaviour is influenced by their interests, their values, and their attitudes toward activities or events. Their aspirations and the incentives they are interested in obtaining, influence their behaviours as well.

Rogers (in Petri, 1981) contends that the learner's self-concept, his view of how well he can cope with the work given to him, fundamentally affects his approach and his understanding. Empirical support for Rogers' ideas has come from Coopersmith (1959) who has shown that children with positive self-concepts are likely to be academically more successful than children with less belief in themselves.

2.6.3 Self-efficacy and self-esteem

Perceived self-efficacy refers to personal beliefs about one's capabilities to organize and to implement actions which are essential to attain designated levels of performance. This in reality is a measure of an individual's self-perception.

Many students display low performance in content area skills due to poor self-efficacy. Personal belief (self-efficacy) functions as a predictor of achievement behaviour. Self-efficacy can have varied effects on achievement behaviour.

The conceptual focus, according to Schunk (1989:14), is derived from Bandura's social cognitive learning theory, which views human functioning in terms of reciprocal interactions between behaviours, environmental variables, cognitions and other personal factors.

In a study by Gade and Fuqua (1988), which used the Self-directed Search to determine personality types, and the Survey of Study Habits and Attitudes, results of analysis of variance showed that students with an investigative or social personality type had significantly higher scores on educational satisfaction than students with a realistic personality type. These results are in accordance with Holland's hypothesis, and provide

support for the generalizability of this hypothesis to an African-American High School, as well as the black South African senior secondary school population.

Students observe models or receive performance feedback from teachers. Individuals in students' social environments may react to them on account of their attributes, rather than on account of what they do.

According to Bandura (1986:393), students who have a low sense of efficacy for accomplishing a task may attempt to avoid it, whereas those who believe they are capable participate more eagerly. Self-efficacy can also affect effort expenditure and persistence. When encountering difficulties, students who believe that they can perform well ought to work harder and persist longer than those who doubt their capabilities. Students who previously performed well in a content area are apt to believe that they are capable of further learning.

According to Youngs (1993:60), it is accepted that self-esteem is somehow factored into the equation that determines a student's learning and overall school success. It is intricately tied to what students will achieve in the course of a lifetime. The role of self-esteem and its contribution to academic achievement should not be underestimated. Self-esteem is self-regard. It is the value each of us assigns to our personhood. It refers to the extent to which individuals regard, positively or negatively, feelings of self-worth. The building blocks for a positive self-esteem depend on positive experiences that shape and affirm a sense of self-efficacy and self-respect.

Self-efficacy is a feeling of mastery, the confidence one has to live one's life. Self-respect is a willingness to assert yourself, to overtly be who you are and to seek to understand your motives, drives and talents.

Students acquire a positive self-esteem by actively participating in their school activities in a meaningful way. Self-esteem shows itself in students' actions, the responsibility they take for the choices they make, and is manifested in their behaviour. A positive self-

esteem reveals that students have thought about their values, and their actions are consistent with those values.

The more positive a student's self-esteem, the more resilient he is to problems and defeats. In the face of adversity, a positive self-esteem serves as a powerful coping strategy for overcoming obstacles. It helps the student compensate for weaknesses and setbacks. With a respect for the self, the student is less likely to inhibit talents and aptitudes, be it through procrastination, substance abuse or other means.

The need to maintain and enhance feelings of a positive self-esteem is one of the most basic human needs. Individuals are inclined to protect their feelings of self-esteem and self-worth from being hurt.

In educational settings success in learning tasks enhances feelings of self-worth and self-esteem. Achievement motivation is a learned drive which is reflected in pursuit of academic competence.

The need to avoid failure could easily give rise to anxiety. Therefore the role of achievement motivation and anxiety are essential for understanding classroom behaviour.

Thus a student with self-knowledge develops a sense of individuality. He believes in his worth as a human being. He has a realistic sense of his aptitudes and interests and focuses on his areas of strengths and leads from them.

2.6.4 Learners' specific self-concept of ability

Brookover questions the general assumption of human ability as the most important predictor of academic achievement (Purkey, 1970). According to his research findings students' attitudes significantly influence achievement.

Brookover, Thomas and Patterson (in Purkey, 1970) conducted a study which had three purposes:

(a) to determine whether the student's concept of his ability in school is significantly and positively related to his academic achievement;
(b) to establish whether the self-concept is differentiated into specific self-concepts which correspond with specific subject-matter areas; and
(c) to establish whether the self-concept significantly and positively correlate with the student's perception of how significant others view his ability.

Each student was given a questionnaire on self-concept to determine the perception of his own ability, both in general and in particular subjects. The study concluded that there are specific self-concepts of ability which are related to specific academic areas which differ from self-concept of general ability. It was also found that the self-concept is significantly and positively correlated with the perceived evaluations of the student by other significant people. This study associated the student's concept of his academic abilities with academic achievement at each grade or standard level.

Other studies also pointed out the significant relationship between self-concept and academic achievement. Irwin (in Purkey, 1970:17) summarizes his research findings as follows: "It may well be that a positive conception of one's self as a person is not only more important than striving to get ahead and enthusiasm for studying and going to school, but that it is a central factor when considering optimal scholastic performance".

Bledsoe found a significant correlation between self-concept and achievement in boys, but the correlation was insignificant in girls (Purkey, 1970).

In a related study Fink likewise found that there is a significant relationship between self-concept and academic achievement, and that this relationship appears stronger in boys than in girls (Purkey, 1970).

Researchers in general are in agreement that successful students can generally be characterized as having positive self-concepts, and tend as individuals to excel in feelings of personal worth.

According to Burns (in Swart, 1988), a survey of literature on the self-concept indicates that a variety of family variables are relevant to students' self-concepts. The following variables are frequently mentioned: parents' child rearing practices, interpersonal relationships, absence of one parent through death or divorce, working status of the mother, family size and birth order of siblings.

In a study of Afro-American students Caplin found that students with more positve self-concepts tended to have higher academic achievement. It appears as if the influence of the self has no racial boundaries. Students who feel negative about their abilities seldom succeed in school. There is growing evidence that poor reading ability is closely bound with feelings of personal worth (Purkey, 1970).

Purkey (1970) is of opinion that success or failure in school significantly influences the way in which students view themselves. Students who experience repeated success at school are likely to develop positive feelings about their abilities, while those who encounter failure tend to develop negative views of themselves.

Students' views of their personalities are subjectively based on personal experiences. Their growing autonomy and physical strength provide them with a degree of freedom that could create a distorted self-concept. A positive self-concept is therefore vital to an adolescent's well-being and successful academic achievement.

2.6.5 Learners' study disposition in academic achievement

Self-concept can therefore be viewed as an individual's perception of his identity, values, beliefs, aspirations and norms. The significant others, such as teachers, parents and peers, play an important role in the development of the individual's self-perception.

Studies have revealed that a measure of academic self-concept is closely related to the achievement of students in academic situations.

In conclusion, according Robinson (1993), and Ackermann and Cilliers (1990), positive attitudes influence study habits and ultimately academic success. A student's self-concept, how he views his intellectual ability, his academic achievement, and future expectations (objectives), greatly influence the student's general study disposition and eventually his academic success.

Research workers Coopersmith (1967) and Rogers (1969) emphasize the importance of self-confidence in learning. Rogers argues that the learner's self-concept, that is his views of how he can deal with the work given to him, fundamentally affects his approach and his understanding. Coopersmith shows that students with positive self-concepts are likely to be more succesful academically than students with less belief in themselves.

Brookover et al. (in Purkey, 1970) came to the conclusion after an extensive research project with students that self-concept of ability is significantly related to achievement among both boys and girls, and that the self-concept of ability is a better predictor of academic achievement than over-all self-concept. Students with low self-concepts rarely perform on above average intellectual functioning levels. A significant proportion of those with high self-concepts of ability, surprisingly, do not perform at comparable levels. Brookover concluded that confidence in one's academic ability is a necessary, but not sufficient in determining academic achievement.

It is accepted that a composite profile of the successful student would reveal relatively high opinion and optimism about future achievements. He has confidence in his general ability and in his ability as a student. He needs fewer favourable evaluations from others.

2.7 IMPORTANCE AND ACQUISITION OF ATTITUDES IN ACADEMIC ACHIEVEMENT

Attitudes and values have motivating and guiding implications for academic achievement. According to Thompson, Gardner and DiVesta (1959:345) "Attitudes instigate and then sustain complex behaviour over long periods of time. They guide and cast an emotional colouring over many of our everyday routines".

Negative attitudes have an unfavourable effect on motivation in that they distract the student from goal striving situations. For example a student who has negative attitudes toward reading because of his early failures will do everything in his power to avoid reading situations. The abscence of a positive attitude or value causes the student to be in a state of inertia. People, especially significant others, might say that the student is not interested or that he is not motivated to learn.

In an effort to investigate the changing role of interest, attitude and study habits, studies have focussed on an observed decline in interests and attitudes pertaining to school subjects that begin around age eleven. This trend is most pronounced in mathematics and science, but holds across school subject areas, school culture and ethos. According to Renninger, Hidi and Krapp (1992) this trend is more pronounced in girls.

Todt (in Renninger et al., 1992), argues that developmental changes in interest, attitudes and study habits can be observed during early adolescence when peers have the most influence. He further mentions that theories and results related to the development of vocational interests may help to explain interest changes in subject matter.

Renninger et al. (1992) report studies conducted by Lehrke, Hoffman and Gardner which have demonstrated that girls are less affected than boys by poorer grades when given interesting instruction in science.

Research on cognitive development has revealed that students become actively interested in what the experimental procedures were allowing them to discover about their mental processes by not imposing other's ideas, or informing them about the purpose of inquiry. This allowed students to participate as co-investigators and learners who functioned not only as sources of data or as *tabula rasa*, but as seekers, researchers and interpreters of data as well.

According to Thompson et al. (1959:340), "... the acquisition of wholesome attitudes and of more generalized values are integral parts of a pupil's education. They can be influenced in culturally approved directions by the informed teacher". The dedicated teacher derives many of his greatest satisfactions from knowledge that his influence has extended beyond the sheer transmission of facts and skills.

Parents, when evaluating the teacher, will say that he is more than a good instructor when he has a positive influence on their children.

Attitudes are acquired and modified in the same way and according to the same learning principles as other human behaviours. Many of students' less emotionalized attitudes and values develop gradually according to an accepted reinforcement theory of learning. For example a student who is continually praised and approved of by his teachers for neat handwriting will prefer and strive toward this goal, even when writing notes to himself that no one else will see. The same principles also apply for negative attitudes and aversions.

Students also adopt the attitudes and values of significant others through identification with them. Psycho-analysts refer to "identification" with others and the "introjection" or "interiorization" of other's attitudes and value systems, sometimes without conscious awareness or any discrimination of the others' desirable or undesriable characteristics.

Thompson et al. (1959:337) argue that students learn things from their school experiences other than those encountered in curricular and extracurricular presentations. These experiences have emotional connotations of pleasantness or unpleasantness.

School experiences provide the basis for many of the students' appreciations and attitudes which are often very strong.

Some attitudes influence students' behaviour only when they are in the presence of the evoking stimuli, in other words students' attitudes are aroused by conditions in their surroundings.

Other students' attitudes are more persistent and enduring. These attitudes become an integral part of persisting needs, and thereby function as long-term goals, shaping students' daily routines in very direct and significant ways. These students' self-arousing and more or less sustained attitudes are regarded as personal values. Personal values influence behaviour and perpetuate cultural norms and styles of living.

A student may appreciate the value of scholarship, not from his own achievements but from others'aspirations and hopes for his academic future. The student studies hard, is attentive, anxious to please, and becomes severely distressed when any situation threatens his hopes of achievement.

The student's development and growth result from the interaction between himself and the environment. The situation often determines the student's academic behaviour. The student encounters the learning situation in a state of readiness. This readiness may be to explore the learning situation, or to avoid it. This is the consequence of the student's past interaction with his environment. The student is greatly influenced by heredity and past experiences. To a greater extent this influences the student's classroom behaviour. Consequently, the student's reaction is determined by all the emotions, attitudes, study habits and personal experiences that he has acquired from past experiences.

Dialogue between a student and a teacher which is based on equality, respect and trust should be maintained in order to improve scholastic achievement and the acquisition of positive attitudes.

Active involvement between teacher and student, and among students, stimulates learning. The students' participation in the classroom may be overt (observable), for example when writing, or covert (unobservable), as when thinking. Interaction with group members helps the student to share ideas, exchange knowledge, formulate new concepts, and gain insight into and understanding of the subject matter. Mastery of the subject matter leads to students' development of self-confidence, which is important for effective learning. This results in students active involvement in the learning experience, and identification with the learning experience.

Johnson and Johnson (1982:429) are of opinion that co-operative group work, which is designed to allow students to express and test their own ideas and to discuss the current focus of classwork, promotes mastery and retention of new information and serves to motivate them. Students should also be encouraged to have individual opinions in a non-threatening learning environment. Reviewing and reflecting upon learning tasks in a group situation improve the development of the students' autonomy, which is essential for good scholastic achievement, because it has influence on attitudes and study habits.

2.8 THE ADOLESCENT LEARNER IN THE SCHOOL

2.8.1 Introduction

The school is a place where students come to learn, know, do, or be more proficient and efficient in certain subjects. Generally, parents and teachers consider time in school well spent if students acquire certain skills, abilities and personal qualities which the parents and teachers value.

2.8.2 Utilization of learners' potential

According to Renninger, Hidi and Krapp (1992), a Piagetian, Wernerian and Vygotskian perspective presumes that the preoperational child first uses individual interest as a forum for exploring properties of objects. In contrast older children are usually required to engage in a range of tasks to which they respond differentially. As such they need to attend to classes of objects and events that are not necessarily of interest to them, and this results in poor academic achievement.

Marshak (1992) emphasises that students must be encouraged to become active, self-aware learners who develop a repertoire of learning skills that fit their needs and learning styles.Ornstein and Thompson (in Caine and Caine, 1991) mention that the brain therefore has an endless capacity to learn, and is provided with a set of outstanding characteristics such as:

- the ability to identify patterns
- the capacity for a variety of memory types
- the ability to self-monitor and learn from experience by analysing external data
- a tremendous capacity for creativity.

Teachers, together with parents and the larger community, should co-operate in seeking strategies that will assist students to make the best of their education.

Hulburt and Gade (1985), state that it is important to accept the viewpoint that study habits and attitudes involve the total teacher corps, not just classroom teachers. McKinnon and Kirally (in Hurlburt and Gade, 1985) have described strategies, methods and programmes combining cognitive and effective learning in the classroom to provide more relevant student learning, more student self-control, and greater respect for teachers and classmates. This is particularly important when one considers the drop-out rate of South African black youth.

2.8.3 Adolescent learners' frame of reference

According to Ornstein and Thompson (in Caine and Caine, 1991), meaning occurs through patterning. They maintain that the brain perceives and generates patterns, and it resists meaningless, fragmented and isolated pieces of information. What is taught at schools should make sense to the students and be based on their life experiences. This could be achieved by determining the students' needs, and the instructional programmes should be designed in such a way that they satisfy those needs.

Emotions are important to memory because they facilitate the storage and recall of information. According to Ornstein (in Caine and Caine, 1991) classroom learning is to a large extent influenced and organized by emotions and mind-sets based on expectancy, personal biases, prejudices, degrees of self-esteem, and the need for social interaction. Hence it is vital in a school environment that both teachers and students should try and create a favourable atmosphere which is conducive to effective learning. The students' abilities to study effectively is closely related to the study climate.

Rosenthal and Jacobson (in Marjoribanks, 1991:241) state that "pupils mirror teachers' expectations in their scholastic performance". Teachers' perceptions of students result in differential treatment of such students.

The implication is that teachers form expectations about each student's academic potential and personality type. Some of the expectations are unfounded, yet the expectations to some extent influence teachers' perception of their students, while students react according to these perceived expectations.

Teachers' expectations which are low, unfounded and rigidly held, negatively influence the students' scholastic performance and class involvement and participation.

Kelly's (1955:12) theory of personal constructs postulated a useful measure of analysing the way individuals' anticipations guide their behaviour. Individuals enter any interaction

with expectations formed during previous experiences. Kelly provided a way of understanding the constraints individuals place on others and themselves.

In order for communication to be effective in optimizing student learning, teachers should be willing to seek the understanding and framework used by students in organizing their learning experience. This will help to eliminate the use by teachers of stereotypes to make the situation more predictable for themselves.

According to Caine and Caine (1991), students have an inexhaustible natural memory system that does not need rehearsal, but allows for immediate memory of experiences. In the classroom situation students should not be forced to memorize. In addition to learning by understanding and insight, students should also be encouraged to learn through self-discovery.

The development of language is facilitated both by internal processes and by interactive social experiences. Meaning is given to specific phenomena as soon as it is enmeshed in ordinary life experiences. In order to assist students to give meaning to study material in the classroom situation, teachers should illustrate their lessons by giving the students practical examples. According to Caine and Caine (1991) this is a common element in "brain-based" learning theories.

According to Gary and Booker (1992), various kinds of collective assignments, study groups, study teams and academic contents or competitions can be used to encourage positive youthful interactions. Study teams can be school based or neighbourhood based. Study teams or groups should at all times be encouraged by both teachers and parents, in and outside the classroom.

Successful people establish goals and aspirations early in life. Parents must have dialogue with youngsters to focus their interests.

2.8.4 Learning environment and the schools' role

Freire (1970:44) describes transformation and growth as the ability to liberate people to be independent thinkers who are capable of transforming themselves and their world. Supportive intervention is therefore important so that students could have faith in their ability to transform their own lives and communities. The transformation and integration will serve to promote participatory learning which is important for the development of problem solving skills, which in turn are essential for effective academic performance.

Generally causes of poor academic performance are attributed to one or more of the following factors: the curriculum is boring and irrelevant, teachers are demoralized, schools have a poor ethos, lack of leadership, lack of proper guidance, diminishing resources, decline of moral standards or respect or discipline in students, difficult or not well-structured subject matter, teachers' explanations not clear enough, low expectations of teachers, lazy or demotivated pupils, and students with learning problems (Thompson et al. 1959).

According to Toffelson, Melvin and Thippavajjala (1990), teachers most frequently attributed low achievement to a typical pattern of low effort. They viewed acquired student characteristics (low motivation, poor work habits) as more important than either teacher variables or classroom variables in explaining students' low achievements. This is so because teachers want students to put extra effort into their school work.

In the classroom situation one should not lose sight of the original stimulus and the desired outcome. Desired goals by students can only be attained in a classroom situation where intellectual growth and integration are basic components to the learning situation. Specific and constructive comments on the work performance of students encourage scholastic achievement.

Claxton (1990:8) says that "... the learners' minds are the only point of contact between what the school is offering and what they will take away with them in the way of

comprehension, capability or equality". Therefore it is only by understanding accurately what is going on in students' minds as they sit in classes and hold discussions on the playgrounds that educationists could see what effects the hypothesized causes really have on students' minds.

Students need direction if they are to use limited subject time effectively. The parent's role is to instruct the child about the ways of maintaining existing cultural competencies, underpinnings and priorities.

Effective learning can be underpinned by utilization of a clear study programme whereby teachers are involved. If studying is to be regarded as more than a memorisation exercise, such programmes need to be developed by the students.

Caine and Caine (1991) explain that to use "brain-based" learning involves acknowledging the brain's rules for meaningful learning and their organizing teaching strategies with those rules in mind. Teaching "brain-based" learning requires of teachers to make a perceptual shift. Their task is to orchestrate the experiences from which the students derive understanding. The student searches for links on many levels. Hence, the teachers will have to do more than encourage memorization, and should provide more information and activation on:

- Designing, formulating and orchestrating lifelike and appropriate experiences for students.
- Ensuring and ascertaining that students process experience in order to increase the extraction of meaning.
- Principles of brain-based learning.

The search for meaning is survival orientated and is involuntary. Making sense of our experiences is fundamental to the human brain. It is for this reason that the schools should try to channel the students' curiosity so that they can, through proper guidance and teaching, be able to explore their environment more meaningfully and effectively.

Students' perceptions are to a great extent influenced by their attitudes and values. The student who has negative attitudes toward the school and his teacher may perceive many of the teacher's routine behaviours as personally threatening and damaging to his self-esteem. Almost everything that the teacher says is distorted as further evidence that "The teacher does not like me" (Thompson, et al (1959:347).

In an effort to explore this effect, Kubli (in Renniger et al., 1992) studied the factors that contributed to the interestingness of physics, and then made suggestions for using these findings to adjust the instructional setting for girls. He suggested for example that girls could become more interested once physics problems were linked to social or everyday problem situations. This was also supported in the same authors by Tobias with respect to both mathematics and science.

On the other hand the student with a highly developed value system aimed at academic achievement perceives the least evidence of progress as encouraging, and is sensitive to minor ways in which he can improve his achievements. Students' perceptions of the external world are to a great extent influenced by their attitudes and values. The student who has apprehensive attitudes toward the school will do everything in his power to avoid schoolwork. Attitudes and values that have become well-established are difficult to change. The student comes to distrust the motives of others who try to influence his behaviour. This makes the teacher's task more difficult, but on the positive side it permits the student some degree of freedom in establishing his attitudes and values.

2.9 MOTIVATION TO LEARN

Motivation according to Slavin (1991:318) is "one of the most important prerequisites for learning". All the buildings, teachers, equipment and furniture in the schools, and the full authority of the state are utilized to ensure that students will attend schools. Slavin (1991:318) says, "All is for naught if students do not want to learn".

The willingness to put effort into learning is the product of many factors of which the motive to learn is a crucial factor.

Different theories of motivation attempt to explain why people are motivated to do what they do. Maslow (1954) in his hierarchy of needs identified two types of needs, deficiency needs and growth needs. The deficiency or basic needs are physiological, safety, belongingness, love and self-esteem needs.

The growth or higher needs are the needs to know and understand things, to appreciate beauty, to grow and develop in appreciation of others and to self actualize.

The deficiency needs are critical to physical and psychological well-being. If these needs are satisfied Slavin (1991:321) says "A person's motivation to satisfy them diminishes".

In contrast growth or higher needs for example the need to self actualize, know, understand, appreciate beauty, grow and develop appreciation of others can never be satisfied completely. In fact, the more the learners meet their need to know and understand the greater their motivation may become to learn more.

In schools it becomes obvious that learners who are not well fed develop low self-esteem and do not feel that they are loved. These learners are most unlikely to be strongly motivated to achieve the search for knowledge and understanding of schoolwork in particular.

According to Friedland (1992), many research studies show a high correlation between positive self-esteem and the following behaviours:

- Higher educational aspirations.
- Superior academic achievement.
- Less chance of dropping out of school.
- Less chance of becoming involved with drugs and alcohol.

- Less chance of anti-social behaviour.
- Greater acceptance of other people and less prejudice.
- More involvement in pro-social behaviour, such as helping others.

The same research clearly shows that the converse of these behaviours is correlated with poor self-esteem. Holt (1967:173) says that we do not have to make adolescent learners smart. All we have to do is to stop making things that make them stupid. We should use our innate thinking abilities to make sense of the world and give learners as much help and guidance as they need and listen respectfully when they feel like talking.

Learners who come to school without breakfast cannot concentrate on spelling but neither can the learner who feels he has no "place" in the school and does not belong in the group (Kagan & Lang 1978:246).

The need to maintain positive self-image is a powerful motivator. Learners who want to maintain a positive self-image believe that they are intelligent and capable of success in their schoolwork and will try to maximize their potential in achievement situations.

Learners sometimes study their school work because it is useful, meaningful and interesting. According to Wilson (in Entwistle 1992:143) the learner should see education and effective study as relevant and interesting in its own right as this could lead to the satisfaction of personal needs, such as self-esteem or need for achievement. For these learners, the subject and content has enough intrinsic incentive value to motivate them.

According to Steinaker and Bell (1979:72), when the learner is intrinsically motivated he will continue to engage in activities, tasks and relationships that will bring inner satisfaction, rather than external rewards or influences. The learner will recognize opportunities to apply his new learning in a variety of new kinds of situations, events and problems. By making generalizations, links and associations, the learner will therefore improve his scholastic achievement.

Learners' positive motivation is essential for effective academic achievement. The understanding of a learner's motive for studying and learning is important as it will indicate what his aspirations and goals are.

The learners' intention, emotions, feelings, beliefs and attitudes are equally important in the learning situation, because they play a contributing role in scholastic achievement.

Much of what must be learned in school according to Slavin (1991:338) is "... not inherently interesting or useful to most students in the short run". It is unrealistic to expect that learners in school will be intrinsically interested and enthusiastic for 200 days per year. School have to apply extrinsic incentives that are not inherent in the material being learned.

A teacher, in an attempt to adapt the subject and classroom setting so that it appeals to the learner relies on intrinsic as well as extrinsic motivation. Extrinsic motivators are used for short term or immediate rewards. Learners often use exploratory or manipulative activities to fulfill their need to achieve and set their own goals. Knowledge of results, information about how successful the learner is achieving (feedback), rewards and punishment are incentives in external motivation.

According to Paris, Olson and Stevenson (1983:143), Atkinson's theory of achievement motivation holds that achievement behaviour is the result of an emotional conflict between fear of failure and hope for success, especially the concern for realistic goal setting. The main emphasis nonetheless remains on non-cognitive factors, including motivation level, task incentive value, and dynamic conflict resolution.

Cooperation and competition are valid motivators in the hands of a skilled teacher, especially when the competition can be modified to become self-competition. The matter of social motives such as dependence, affiliation and desire for approval also have a great

deal to do with encouraging learners to learn and to participate in co-operative ventures (Child 1986:46).

Many adolescent learners' motivations are not closely tied to school mastery, because they are trying to match their behaviours to standards of independence and autonomy, for example development of a mature heterosexual sex role, and an ideology. They would like to regard themselves as independent of their families and free from the need of praise and support from adults. This is incompatible with school progress, since the school situation places adolescent learners in a dependent position as they have to comply with instructions.

According to Kagan and Lang (1978), once the motivation to "resist" becomes more important than the motivation "to master", students may blame the school situation and their personal failure on events outside themselves, for example teachers' hostility, prescribed text books, bad luck, etc. In other words, the students externalize the reasons for their failure. Other students in the same position will blame themselves, assuming that they are not smart enough, did not work hard, or were lazy, in other words they internalize their reasons for failure.

Some students feel that important events that affect their lives are not under their control, but are due instead to people and forces outside themselves, for example the prejudice of others, economic conditions, bad politicians, and even astrological events.

Students with strong internalized attitudes not only perform better on tasks they view as related to individual qualities, they also have a higher expectancy of success. Students who externalize have a lower expectancy of success. A high expectancy of success, according to Kagan and Lang (1978), can positively influence a student's performance, convincing him that the difficulties of the task are outweighed by the probable rewards of meeting the challenge and solving the problem.

Teachers' attitudes, according to the same authors, can contribute to a student's expectancy of success. While teachers communicate to some students that they expect them to succeed, they may indicate the opposite to others.

Peer group values influence the adolescent learner. Adolescent learners relate primarily to their peers. Peer acceptance carries more weight than teacher approval, and in some instances more than family opinion. If the peer group values academic competence, the adolescent learner puts in more effort in school work, but if it does not, and the adolescent learner does not want to be alienated from his peers, the conflict which may result induces the adolescent learner to alter his hierarchy of motives.

Peer groups at any maturity level, according to Marjoribanks (1991), play crucial roles in giving support to and in shaping attitudes, opinions, information, and social behaviours. Members of peer groups also serve as guardians and monitors of fellow-members' activities, affiliations wherein new skills and contents may be attained from learning apportunities. Peer group members have a considerable effect, next only to the family, on socio-economic, vocational, and value orientations.

Before investing effort in school, the adolescent learner demands to know the connection between school work and his personal agenda. Society should supply him with the reason that academic mastery will enable him to enter college and therefore choose the vocational role that he wants.

For adolescent learners who can see the connection between their own goals and school assignments, motivation will be high. Goal setting is of central importance for adolescent learners and Slavin (1991:357) states "... that people work harder for goals they themselves establish than for goals set by others".

Lepper and Defoe, (in Majoribanks, 1991:238), applied the attributional model for intrinsic motivation to the classroom setting. According to researchers students make attributions for engaging in various activities in the classroom. If a student who is

engaged in an activity perceives his actions to be controlled by important and powerful extrinsic variables, such as a promise of tangible reward or the teachers' surveillance, he is likely to attribute his behaviour to those extrinsic factors. If such extrinsic constraints are, however, not important, or are insufficient to explain his engagement in the activity, the student will attribute his behaviour to intrinsic factors. This implies that inappropriate use of tangible rewards in the classroom may have detrimental effects on performance and subsequent interest in the task. Offers of rewards in such situations may decrease learners' intrinsic motivation.

Overly strict discipline at home or overwhelming regimentation in the classroom may cause learners to loose their curiosity. The learner who feels unloved and rejected by his parents may be the source of trouble at home and in the classroom and he often will grow into a juvenile delinquent or an adult law breaker, (Jones, Shainberg and Byer 1970:7). Every effort should be made to restore suppressed curiosity because it leads to creativity and invention.

The learners' study habits and attitudes come from their understanding of their needs (self knowledge), the extent to which these needs are fulfilled, and the manner in which they react to the frustration of these needs. The satisfaction of the higher needs to know and understand gives learners a bright, happy feeling of fulfillment of their academic life.

Slavin (1991:357) states that the principles of effective use of incentives to motivate learners include clarity and immediacy of feedback frequency of assessment, feedback and reward, value of rewards and availability of rewards.

The goals, needs and beliefs of adolescent learners are the central focus for teachers and educators to motivate the learners to participate in the school learning situation.

2.10 SOCIAL BACKGROUND OF THE ADOLESCENT LEARNER

Many of students' differences arise from their social background, which in turn causes students to manifest certain characteristics in their classroom and social behaviours. Students from unfavourable social backgrounds often obtain low scores. Amongst other things they manifest the following features: they attain low levels of achievement, they frequently repeat classes, they become drop-outs at early ages, they are placed in special classess, and they are identified as having social, learning and behaviour problems.

Capella, Etzler and Mackenzie (1983), in their research on the effects of positive peer influence on study habits, concluded that positive peer influence is related to college students' positive study habits.

According to Woodard (1992), poverty and a troubled environment have been overcome by many high achievers. Confidence and the will to succeed can enable students to succeed, despite overwhelming odds against them.

Ekstram, Goertz and Rock (in Wheeler, 1992:29) conclude that, "A student's home educational support system is an important factor in explaining cognitive growth in high school students". Hart (in Wheeler, 1992:29), agrees that, "... secondary schools can raise student achievement by getting parents involved. The findings also dispel the myth that parents of secondary school students are unable to assist their children with academic work because the academics are beyond them. What is necessary at the secondary level is direct participation by the parents, in which they demonstrate an interest in what the schools are doing for their children".

The students' differences more often stem from problems of inequality arising from impoverished social background.

Students' social behaviour subsumes a broad sense of variables. This view is supported by Marjoribanks (1991:39) who is of opinion that students' social backgrounds refer to

the social context, in other words people with whom students have lived during their preschool life, and with whom they live when not in the classroom.

Cultural ethos, which includes ethnic background, home language, sex roles and religious values, equip some students to adapt more easily than others to the school setting.

Problems in understanding and comprehending of, and communicating in the language of instruction, could result in low verbal interaction scores, difficulties in maintaining concentration, and in adhering to classroom discipline which could easily be ascribed to behaviour and learning problems. This could also negatively influence interaction with teachers.

A vicious circle could be created whereby the behaviour of teachers becomes stimuli for the behaviour of students, who might confirm or deny the teachers' belief system.

In order to promote learning, teachers should be more sensitive to the cultural background of students. The relationship between students' social background and their school results should always be considered by significant others, as it often leads to academic problems.

Variations in teachers' praise could easily influence the students academic achievement.

Gay (in Marjoribanks, 1991) states that the most commonly obtained finding in teacher behaviour research is that ethnic minority students have fewer interactions with teachers than fellow students. This results in the students receiving less information from the teachers concerning their academic achievement.

It is crucial that students should be treated as unique individuals by teachers.

Equality of educational opportunity is attained when the mean results of schooling from minority group students are the same as the mean results of students from the dominant societal group.

Inequality in educational opportunities are to some extent brought about by discrepancies in student per capita expenditure, lack of physical facilities and students' lack of interest in learning.

Ogbu (in Marjoribanks, 1991) argues that for research on educational programmes to be of any value, it should be set within structural and cultural contexts.

It has been suggested (Marjoribanks, 1991:16) that the school's culture confirms and sustains the culture of the dominant group, while it marginalizes the culture of subordinate groups. Dominant social groups have the power to determine what is valued in the educational system. Subordinated groups will therefore be disadvantaged in relation to the criteria set by the more powerful groups.

A student's language ability develops as a result of the communication process which takes place within the family. The language skills acquired by the student serve as a tool of differentiation into classes that will fit into established schools in the educational situation.

Students' academic achievement can be predicted by socio-economic variables or by family environmental factors. Kagan (in Marjoribanks, 1991), mentioned that socio-economic status can be regarded as an important aspect of a student's social background and as a factor which determines certain aspects of family environment and indirectly influences students' academic achievement. Socio-economic status as a predictor varies according to the way it is defined and operationalized. It is related to factors such as parents' attitudes towards school and education in general. It helps to determine students' classroom behaviour. Socio-economic status helps the student to develop and determine his self-concept, self-esteem and aspirations for the future.

Students from low socio-economic backgrounds do not have the benefit of environments that guarantees maximal development of potential. Little or no support for personal growth is provided by their home backgrounds. Hence it is not always easy for the students to succeed academically. It is therefore essential for effective learning that students' talents, abilities and genetic potentials should be maximized by family environments.

Students from low socio-economic families are faced with disparities between the norms of their social background and those of the classroom. According to Marjoribanks (1991:49), typical problems students are exposed to are difficulties in understanding the meaning of certain items, subjects, communication procedures, etc. Secondly, discrepancies in values and aspirations between the student, fellow students and teachers might result in inadequate reinforcement, because the visible results do not conform to a certain norm. Thirdly, conflicting influences from the family and the school may lead to uncertainty, disorientation, loss of self-esteem or self-confidence and reduced motivation.

Students' chances of overcoming initial deficits is relatively low, and they run the risk of falling further behind if special educational support is not provided. This is due to the fact that their social background provides them with little school-related experience and school subject related pre-knowledge. The students are likely to show behaviours that differ from what the teacher expects. The result is a negative teacher-student relationship which is accompanied by negative feelings towards the teacher. This could lead to conflict or limit contact between the teacher and the parents.

Marjoribanks (1991) revealed that these factors, and a low interest in an academic career, negative academic self-concept, perceived differences between student social background and demands of the formal education system, help to explain research findings that often report a poor personal relationship between low socio-economic status parents and teachers. The parents adopt an attitude of resignation, and students

get little or no support from either parents or teachers. Students are therefore dependent on the support of peers who are subject to the same conditions.

The relationship between student social background and classroom behaviour is to some extent determined by societal goals, ideologies and political priorities, because these factors determine what really happens at school and in the classroom situation.

From the above discussion one could deduce that a student is not only a cognitive being, but also a physical, affective, and a social being.

2.11 OVERVIEW

In this chapter the researcher gave perspectives of learning specifically of the adolescent learner together with factors which influence the learning situation.

The adolescent as a person was described in time and space dimensions where he learns through the use of language symbols. The learning process is facilitated by an interaction with the teacher and other learners. This process culminates by having motivated or demotivated unique individual learners who are either positively or negatively influenced by social factors in the learning situation.

CHAPTER 3

METHOD OF RESEARCH

3.1 INTRODUCTION

The research is aimed at investigating study habits and attitudes of Khayelitsha black senior secondary school students in the Western Cape Area Directorate.

The survey was conducted in order to investigate students' attitudes, the effectiveness of their study habits, and to get information from teachers on their students' study skills.

3.2 MEASURING INSTRUMENTS

The following questionnaires were used in this study:

3.2.1 Survey of Study Habits and Attitudes (SSHA), Form H, adapted and standardized for use in South Africa by L du Toit (1974).

3.2.2 A questionnaire to obtain information from the students' population (see Appendix B).

3.2.3 A questionnaire to obtain information from teachers about their students' study habits and attitudes (see Appendix C).

3.2.1.1 Rationale of the SSHA questionnaire

Brown and Holtzman (1967) of the USA developed the SSHA. Two forms of the questionnaire are available, viz. Form H and Form C. The Form H questionnaire was translated, adapted and standardized for secondary school students in the Republic of South Africa by the Institute for Psychometric Research of the Human Sciences Research Council.

The seven SSHA scales, viz. Delay Avoidance (DA), Work Methods (WM), Study Habits (SH), Teacher Approval (TA), Education Acceptance (EA), Study Attitudes (SA), and Study Orientation (SO) provide a valid criterion for the measurement of the effectiveness of students' study habits and attitudes.

In discussing the SSHA, Du Toit (1974:1) argues that "The fact that some pupils with apparently high scholastic aptitude do poorly at school, while others with apparently mediocre ability do well, presents a challenge to persons concerned with the problem".

The SSHA was developed to help meet this challenge. It is an easily administered measure for evaluating study methods, motivation for studying, and certain attitudes towards teachers and the school which are important in the classroom.

An important assumption of the SSHA which the above quotation underlines, is that the SSHA as a diagnostic instrument serves:

(a) to identify students with ineffective study habits and attitudes;

(b) to identify study problems; and

(c) to provide a basis for helping such students improve their study habits and attitudes and thus more fully realize their potential. To achieve this goal the students are reminded in the instructions to rate themselves not as they think they should do or feel, or as they think others might do or feel, *but as they themselves are in the habit of doing or feeling.*

3.2.1.2 Description of the SSHA subscales

The SSHA questionnaire has two forms - one for secondary school students, and the other for tertiary students.

Form H of the SSHA for secondary school students consists of 100 statements which are grouped into the following seven scales:

- DA (Delay Avoidance) indicates to what extent the student promptly completes his assignments, avoids delay and is not inclined to unnecessary waste of time.

- WM (Work Mehtods) gives an indication of the student's use of effective study methods, his efficiency in doing assignments and the extent to which he sets about his school work in the most effective way.

- SH (Study Habits) combines the scores on the DA and WM scales to provide a measure for academic behaviour.

- TA (Teacher Approval) provides a measure of the student's attitude towards the teacher's classroom behaviour and methods.

- EA (Education Acceptance) determines the extent of the student's acceptance of educational ideals, objectives, practices and requirements.

- SA (Study Attitude) combines the scores of TA and EA to provide a measure of the student's confidence in scholastic aims.

- SO (Study Orientation) is a combination of all the above-mentioned aspects and provides an over-all measure of the student's study habits and attitudes.

The questionnaire permits the student to decide about how he feels when he considers each of the 100 statements. The following is an explanation of the terms used for responses to the statements:

N - RARELY (or never) means from 0 to 15 percent of the time.
S - SOMETIMES means 16 to 35 percent of the time.
D - FREQUENTLY (or often) means 36 to 65 percent of the time.
G - GENERALLY means from 66 to 85 percent of the time.
A - ALMOST ALWAYS means from 86 - 100 percent of the time.

3.2.1.3 The Validity, Reliability and Normative Data of the SSHA

Research has shown that the SSHA has a high predictive validity with regard to academic achievement. There is a relatively high, statistically significant relationship between study habits, attitudes and academic achievement. Correlations between academic achievement (average percentages) and scores in the seven SSHA fields of standard 10 students were as follows: DA (0,303); WM (0,377); TA (0,286); EA (0,338); SH (0,380); SA (0,278), and SO (0,368). The manual has normative data.

Both the test-retest method and the split-half reliability method are considered suitable. Results obtained seem to indicate that the SSHA is reasonably reliable (Du Toit, 1974:8-10).

3.2.1.4 Other research studies using the SSHA

A limited number of studies have been carried out using Form H of SSHA. In one study Form H (SSHA) was administered to 160 American-Indian students in grades 7 (Std 5) through 12 (Std 10) at a reserve school in Manitoba, Canada. Classroom achievement and behaviour were measured by teacher ratings of students' academic achievement, co-operation, and work habits. This study showed that study habits and poor study attitudes, especially in the junior high school years and among boys, are related to teacher ratings of lower achievement, less co-operation, and poorer work habits (Hurlburt and Gade, 1985).

3.2.1.5 Students' Questionnaire

Students were also given a questionnaire to investigate the influence of environmental conditions on their study habits and attitudes. The questionnaire consists of six statements rated on a 2-point scale. Students were rated "0" if they were affected by the environmental circumstances, and "1" if they were not affected (See Appendix B).

3.2.1.6 Teachers' questionnaire

Seventy eight subject and classroom teachers independently rated the students study skills on a 2-point scale. The questionnaire consists of thirty two statements. Study skills were rated "0" if they were only applicable to "some" students, and "1" if it applied to "most" students (See Appendix C).

3.3 RESEARCH

3.3.1 Subjects

The Form H of the SSHA questionnaire was administered to 1140 black standard ten students aged 15 to 38 years at all the eight black senior secondary schools in Khayelitsha.

The total number of students surveyed in all the senior secondary schools was N = 1140 (male students N = 411 and female students N = 729).

Students were categorized into two groups in terms of the age variable: Group 1 (N = 662 aged 20 years and younger) and Group 2 (N = 478 aged 21 years and above).

Categorization of students was also done in terms of both the age and sex variables of the following subgroups:

N = 214 males aged 20 years and younger.
N = 197 males aged 21 years and above.
N = 448 females aged 20 years and younger.
N = 281 females aged 21 years and above.

All subject and class teachers (N = 78) and standard ten students (N = 1140) were also given questionnaires on the study skills and environmental circumstances respectively (See Appendix B and C).

3.3.2 Administration procedure

The survey was conducted in a group setting in different classrooms at the students' schools. The researcher conducted the survey himself and it took place in all the senior secondary schools in Khayelitsha.

Standard administration procedures were followed in conducting the survey. The researcher moved from school to school and in each class he was assisted by the guidance teacher in handing to the students an HB pencil, an answer sheet (778pp), and Form H (780pp) of the SSHA questionnaire booklet. The researcher gave the instruction "complete the questionnaire" to the students. The guidance teacher and the researcher were always available to assist the students should they encounter problems of whatever nature. This was done in a manner so as not to influence the students' decision in making the responses.

There was no time limit. The researcher waited until all the students finished answering the questions, and then collected their questionnaires.

Each standard ten subject and class teacher was given a questionnaire on standard ten students' study skills.

Students' classroom disposition was measured by teacher ratings of students' study skills, study habits and study attitudes. Seventy eight subject and classroom teachers

independently rated the students on a 2-point scale. Study skills were rated "0" if they were only applicable to "some" students, and "1" if it applied to most of the students.

Students were also given a questionnaire to investigate the influence of environmental circumstances on their study habits and attitudes. The questionnaire was administered to 1140 students.

In order to test the null-hypothesis (H_0), Form H of the SSHA questionnaire responses were used to collect data of study habits and attitudes of students.

The data collected were converted to the percentile Standard Scores (SS) of the seven variables/subscales of the SSHA, i.e. Delay Avoidance (DA), Work Methods (WM), Study Habits (SH), Teacher Approval (TA), Education Acceptance (EA), Study Attitudes (SA), and Study Orientation (SO). The percentile/standard scores were compared with the normative data reported in the SSHA manual.

The statistics were computed using multivariate analysis of variance, taking account of unequal subgroups by using a general linear programme. The interaction of sex, age, and school on the variables DA, WM, SH, TA, EA, SA and SO were analysed.

The difference of the means of the standard scores of the four subgroups were computed in order to determine the significance of the levels of interaction. The four subgroups were as follows:

N = 214 males aged 20 years and younger.
N = 197 males aged 21 years and above.
N = 448 females aged 20 years and younger.
N = 281 females aged 21 years and above.

The sex and age interaction on the SSHA variables were recorded and yielded the following tables.

Table 1: Sex by age interaction on SSI (Delay Avoidance) subscale

Sex	Age	Standard score delay avoidance (SS1)		
		N	Means	SD
Male students	≤ 20	214	55,117	27,217
Male students	≥ 21	197	60,970	24,455
Female students	≤ 20	448	60,629	24,558
Female students	≥ 21	281	58,292	23,852

Table 2: Sex by age interaction F and P values on SSI (DA) subscale

	DF	TYPE III SS	F VALUE	Pr > F
SEX	1	517,17	0,83	0,3611
AGE	1	795,10	1,28	0,2575
SEX x AGE	1	4316,77	6,97*	0,0084*

* P < 0,05

Table 3: Mean and standard deviation scores on SS5 (Education Acceptance) scale per age group

GENERAL LINEAR MODELS PROCEDURE

Level of age	Education Acceptance (SS5)		
	N	Mean	SD
≤ 20	662	51,2688	27,2222
≥ 21	478	45,8807	27,4358

The null-hypothesis of responses (mean standard scores) of sex, age, and school factors on SSHA variables were tested using chi-square tests, t-tests and F-tests.

3.4 DEMOGRAPHIC AND POPULATION STATISTICS

3.4.1 Statistics for Cape Peninsula with special reference to Khayelitsha

With the rapid increase of families migrating from rural to urban areas, traditional family practices are diminishing remarkably. One can assume that the study habits and attitudes of students who have problems, whether at home or at school, are either directly or indirectly influenced by urbanization.

As a result of urbanization the erosion of family life-styles has in one way or another an effect on the school-going child.

The Population Census of 1991 (Central Statistical Service Reports Numbers 03-01-11 and 03-01-12) provide a general background of the educational level, houses and age distribution of the inhabitants of areas in the Cape Peninsula where the research was conducted.

3.4.1.1 Educational level

According to the Population Census of 1991, Lingelethu West, a residential area in Khayelitsha had a total black population of 188 390, with 99 034 males and 89 356 females.

Table 4: Education level of Lingelethu West inhabitants in Khayelitsha

	EDUCATIONAL LEVEL	MALES	FEMALES	TOTAL
1.	NONE AND UNSPECIFIED	25548	21824	47372
2.	Grade 1 (Sub A)- Grade 3 (Std 1)	23410	18479	41889
3.	Std 4 (Grade 6)	8349	5582	13931
4.	Std 5 (Grade 7)	10609	9214	19823
5.	Std 6 (Grade 8)	11169	11000	22169
6.	Std 7 (Grade 9)	6722	~8860	15582
7.	Std 8 (Grade 10)	5681	6770	12451
8.	Std 9 (Grade 11)	3873	4059	7932
9.	Std 10 (Grade 12)	3002	2947	5949
10.	DIPLOMA WITH STD 9 OR LOWER	--	--	--
11.	DIPLOMA WITH STD 10	478	622	1100
12.	Degree	191	--	191
		99034	89356	188390

3.4.1.2 House size and number of persons in dwelling

Table 5 shows urban and non-urban blacks' houses size by number of persons in dwellings in the Cape Peninsula.

Table 5: House size by number of persons in dwelling

Number of persons in household	Rooms		
	1-3	4-5	6^+
1	831	156	34
2	1635	643	33
3	2169	686	64
4	1619	643	98
5	1722	1044	106
6	2247	978	201
7	956	101	9
8	379	90	5
9	167	73	4
10	744	87	38
Total	**12499**	**4501**	**592**

Table 6: Age distribution of inhabitants

Table 6 shows the year 1991 age distribution statistics of the inhabitants of Lingelethu West a residential area in Khayelitsha.

AGE	MALE	FEMALE	TOTAL
- 1	2387	2911	5298
1 - 4	10215	9517	19732
5 - 9	11135	10073	21208
10 - 14	6083	6882	12965
15 - 19	6656	8490	15146
20 - 24	13156	11415	24571
25 - 34	22391	22206	44597
35 - 44	14585	10386	24971
45 - 54	8195	5059	13264
55 - 59	2018	1062	3080
60 - 64	1140	511	1651
65 +	1073	834	1907
TOTAL	99034	89356	188390

3.4.2 General statistics on South African Black population

3.4.2.1 Illiteracy and education

According to Louw (1992:5), the projected growth rate for South Africa will result in a total population of 90 million by the year 2035.

According to Louw's report series (1992), more than 50% of South Africa's blacks are below the age of 20, and approximately the same percentage are illiterate, thereby fuelling a vicious cycle of ignorance and poverty.

Children under the age of six years face the greatest deprivation, particularly those living in obscure and peri-urban centres. Recent statistics show that approximately 25% of black children who enter school fail the first grade, and many drop out of school. Of approximately 6,4 million children under the age of six in South Africa, only 6% have access to early childhood education and care, of which the overwhelming majority are white.

One in every 10 000 black school entrants matriculates with university entrance qualifications in mathematics and science.

3.4.2.2 Economic indicators

It has been estimated (Louw, 1992:5) that 50% of South Africans live below the "minimum living level", and in the black population this percentage rises to approximately 66%. Peri-urban residents are particularly vulnerable, because the forces that lock them into the cycle of poverty, such as population growth, bad health, unemployment, and a degraded environment, are all inter-related.

Wilson and Ramphele (in Louw, 1992:5) found that in 1990 the average monthly income per household in a rural community was R342,00, which is well below the estimated subsistence level.

3.4.2.3 Employment

The rural-urban mobility of migrant labourers has resulted in the erosion of supportive traditional family value systems. Louw (1992) reports that migrants are subjected by poverty because of the high rate of unemployment. The unskilled labourers' expectations remain unfulfilled as some fail to secure highly paid jobs. This is partly due to the high competition for the available jobs in the urban centres.

3.4.2.4 Transport

According to Louw (1992) most urban or peri-urban residents rely heavily on public transport for regular commuting and subsequently incur high travel expenditure. It is also true that travel to and from work may be stressful and time-consuming for urban and peri-urban workers and students.

On the other hand peri-urban housewives require considerable time to perform household chores because of lack of suitable facilities.

In all the secondary schools in Khayelitsha area some of the students arrive late at school due to long distances which they have to travel. Some students travel to school by bus and at times they have to wait for quite some time before they board buses to their schools. The reason for this is not that the buses are not available but that they are full and they drive past the school children who are waiting at the bus stops.

3.4.2.5 Water, energy, housing

3.4.2.5.1 Water

The demands for resources such as water, energy and housing are very high in peri-urban settlements. Consequently this affects the welfare of families and the progress of school-going children.

There are different dimensions of poverty. In this study attention will be limited to three of the basic needs of human beings in any society, namely water, energy and housing.

Louw (1992) mentions that the single most important factor limiting the development of peri-urban settlements in South Africa is water, which is a very scarce commodity in most peri-urban settlements. As a result the collection of water in many areas is a time consuming task, and takes up to 2 - 3 hours of a housewife's time, which could be far more profitably used.

The South African National Scientific Programmes (SANSP) Report (1985) emphasises the lack of adequate supplies of clean drinking water as a major problem facing black communities throughout the rural areas of South Africa.

3.4.2.5.2 Energy

According to Louw (1992), many rural women spend up to 40% of their time collecting firewood to supply energy in their households. This makes untenable inroads into the time of rural women, which could be used far more profitably. There are imbalances in electricity usage between the metropolitan and the rural black areas.

Consequently the rural women spend less time tending their home gardens, caring for their children, educating themselves, having leisure and perhaps initiating some industries.

Lack of direct access to electricity in some of the shacks in Khayelitsha causes endless problems for school-going children, because when studying at night they have to use paraffin lamps and candles.

Another dimension of the fuel problem in urban areas was shown by Eberhard (in the South African National Scientific Programmes Report, 1985) in his study on energy and poverty in Cape Town, where he found that fuel for cooking, heating and lighting often costs more per unit of energy for the poor than it does for those who are better off. For example in Valhalla Park he found that those households which could afford the connection fee for electricity supply spent an average of R25 per month on energy. Poorer households that had to use paraffin lamps and candles had running costs nearly three times as high, i.e. R65 per month.

Like water, energy supply to peri-urban settlements is of crucial importance for future development, welfare of the families, and the progress of children at school. In 1994 electricity was supplied to some, but not all the squatter settlements in Khayelitsha.

3.4.2.5.3 Housing

Suitable housing, according to Louw (1992), is naturally a high priority in any community, but it is significant to note that poor communities are often left to their own resources to provide their housing, while the authorities only supply water and sanitation.

Poor communities have largely been left to design and build their own houses, often from scrap material.

The Lingelethu West dwellings' census revealed that out of a total of 17 592 dwellings there were 12 499 households with three or less number of rooms (see Table 6). In some of these dwellings there were more than six people.

In peri-urban areas shacks have an adverse effect on the lives of families, especially on school-going children, because of inadequate lights, lack of privacy and sewerage.

3.5 HYPOTHESES

In order to investigate the study habits and attitudes of black standard ten students, the following research hypotheses were formulated.

H_0: There are no differences between students of different ages and sexes with regard to their study habits and attitudes as measured by the seven subscales: Delay Avoidance (DA); Work Methods (WM); Study Habits (SH); Teacher Approval (TA); Education Acceptance (EA); Study Attitudes (SA), and Study Orientation (SO) of the Survey of Study Habits and Attitudes (SSHA) questionnaire.

H_1: There are differences between students of different ages and sexes with regard to their study habits, attitudes as measured by the seven subscales: Delay Avoidance (DA); Work Methods (WM); Study Habits (SH); Teacher Approval (TA); Education Acceptance (EA); Study Attitudes (SA), and Study Orientation (SO) of the Survey of Study Habits and Attitudes (SSHA) questionnaire.

CHAPTER 4

RESEARCH FINDINGS AND INTERPRETATION

4.1 INTRODUCTION

To illustrate the interpretation of the analysis of variance tests, delay avoidance (DA) mean standard scores (SSI) will be described in detail. Table 7 summarises mean scores (SSI) and standard deviations (SD) of the four sex by age subgroups.

Table 7: Delay avoidance (DA) standard score means (SSI)

Sex	Age	N	Mean	SD
MALE	≤ 20	214	55,117	27,217
MALE	≥ 21	197	60,970	24,455
FEMALE	≤ 20	448	60,629	24,558
FEMALE	≥ 21	281	58,292	23,852

Table 8: P values as measured by the seven SSHA subscales, DA, WM, SH, EA, TA, SA, and SO

	SS1	SS2	SS3	SS4	SS5	SS6	SS7
	DA	WM	SH	TA	EA	SA	SO
SEX	0,36	0,08	0,71	0,35	0,48	0,47	0,94
AGE	0,26	0,01*	0,46	0,77	0,01*	0,11	0,22
AGE x SEX	0,01*	0,02*	0,01*	0,37	0,24	0,26	0,03*

* $P \leq 0,05$

Table 9: F statistics as measured by the seven SSHA subscales DA, WM, SH, TA, EA, SA, SO

	SS1	SS2	SS3	SS4	SS5	SS6	SS7
	DA	WM	SH	TA	EA	SA	SO
SEX	0,83	3,00	0,14	0,89	0,49	0,53	0,01
AGE	1,28	6,54*	0,55	0,09	7,78*	2,56	1,48
AGE x SEX	6,97*	5,64*	8,11*	0,82	1,40	1,27	4,50*

* $P \leq 0,05$

4.1.1 Analysis of variance on factors AGE and SEX

Tables 8 and 9 provide the P values and F statistics resulting from analysis of variance to test the significance of the effects of the factors AGE and SEX. Throughout the convention of regarding an effect as significant if $P \leq 0.05$ is adopted. In Tables 8 and 9 significant differences are shown, and the null hypothesis is rejected in five out of the seven SSHA subscales, i.e. delay avoidance (DA), work methods (WM), study habits (SH), education accecptance (EA) and study orientation (SO).

There are differences between students of different ages and sexes with regard to their study habits and attitudes as measured by five of the seven SSHA subscales. All the students' mean scores were below the 50th percentile on the teacher approval subscale. The same applied with the study attitude scores, with the exception of two schools. A significant number of students externalize their motives and have negative study attitudes (see Table 32).

Table 10: Delay Avoidance mean values

SOURCE	DF	SUM OF SQUARES	F VALUE	PR > F
Model	3	5314.74807360	2.86	0.0359
Error	1136	703894.45894394		
Corrected Total	1139	709209.20701754		

SOURCE	DF	SUM OF SQUARES	F VALUE	PR > F
SEX	1	517.16773540	0.83	0.3611
AGE	1	795.09687718	1.28	0.2575
SEX x AGE	1	4316.76890732	6.97*	0.0084*

The interpretation of the analysis of variance is facilitated by transcribing the DA (SSI) mean values in Table 7 in the following cross tabular form.

Table 11: Delay avoidance standard score means

		Age 0	Age 1	
Sex	0	55,12	60,97	57,92
	1	60,63	58,29	59,73
		58,85	59,40	

Sex: 0 = Male, 1 = Female

Age: $0 \leq 20$, $1 \geq 21$

4.1.2 Interpretation of sex by age interaction

The analysis of variance on variable DA showed that there is a significant sex by age interaction, main effects sex and age were not significant. The interpretation of the significant interaction is as follows: In the students' male group (N = 411) the delay avoidance mean scores (55,12 to 60,97) increased with age, whilst in the female students' group (N = 729) the delay avoidance mean scores (60,63 to 58,29) decreased with age. In other words, at sex = 0 (male students) the difference in delay avoidance means 60,97 - 55,12 = 5,85, at sex = 1 (female students group) the delay avoidance difference in means is 58,28 - 60,23 = -2,34. The question is whether the 'contrast' of mean differences 5,85 - (-2,34) is significantly different from zero. Details of the appropriate test of significance are given below.

There are three important 'contrasts' of these means to consider. For notational convenience we designate the four subgroup means A_{00} = the mean of the subgroup SEX = 0, AGE = 0, etc. First the 'main effect' of SEX defined as $(A_{10} + A_{11}) - (A_{00} + A_{01})$. Essentially this contrast is a comparison of the means of the two sex groups. The observed value of this main effect is [60, 629 + 58,292 - 55,117 + 60,970] = 2,834. Its standard error is

$$(24,892)\,[1/448 + 1/281 + 1/214 + 1/197]^{1/2} = 3,102$$

where 24,892 is the 'within groups' standard deviation. Hence 't' for testing the significance of the main effect SEX is 2,834 / 3,102 = 0,914 , P = 0,361. Thus main effect SEX is not significant. The effect of SEX statistic value F = 0,83; P = 0,3611 is indicated in Table 10. The main effect AGE as shown by Table 10 has statistic value P = 0,2575, which is >0,05, so the main effect AGE is also not significant.

The interaction SEX x AGE is measured by the contrast

$$(A_{10} - A_{11}) - (A_{00} - A_{01}) = [60,629 - 58,292 - (55,117 - 60,970)] = 8,190$$

This interaction effect is significant. As indicated in Table 10 the statistic P value = 0,0084 which is < 0,05. The effect of AGE by SEX = 1 (Female students' group), i.e.

60,629 - 58,292 is compared with the effect of AGE by SEX = 0 (Male students' group), i.e. 55,117 - 60,970. The fact that this contrast is significant implies that there is indeed an AGE effect, but it is different in the two SEX groups. The SEX = 1 female students' group, aged ≥ 21 (AGE = 1) has a lower mean score, unlike in group SEX = 0 (male students' group), aged ≥ 21 (AGE = 1) which has a higher mean score.

The male students aged above and equal to 21 tended to have higher mean scores than those aged below and equal to 20 on the delay avoidance subscale.

On the other hand female students aged below and equal to 20 tended to have higher mean scores than those aged above and equal to 21 on the delay avoidance subscale.

NOTE: The interaction effect is important when interpreting main effects. The interaction contrast can also be looked upon as the difference between the sexes compared at levels 0 and 1 of AGE.

There is a significant SEX x AGE interaction showing that the effect of AGE (SEX) is different at the two levels of SEX (AGE) variables. In this case it happens that the AGE effect is not only different for the two sexes, but it is also of opposite sign. The overall effect is that the main effects are not significant.

Complete summaries of the findings as measured by each of the seven subscales of SSHA will be dealt with extensively in this chapter.

4.2 SUMMARY OF SEX BY AGE INTERACTION AS MEASURED BY THE SEVEN SUBSCALES OF SSHA

4.2.1 Delay Avoidance (DA)

Table 12: Age by Sex mean values

		Age 0	Age 1	
Sex	0	55,12	60,97	57,92
	1	60,63	58,29	59,73
		58,85	59,40	

The analysis of variance on variable DA has been fully described in the introduction of this section. There is a significant interaction showing that the effect of AGE (SEX) is different at the two levels of SEX (AGE). The Age effect is not only different for the two sexes but is also of opposite sign. The overall effect is that the main effects are not significant.

4.2.2 Work Methods (WM)

Table 13: Work Methods

SOURCE	DF	SUM OF SQUARES	F VALUE	PR > F
Model	3	12454.2161179	5.91	0.0005
Error	1136	797749.9408997		
Corrected Total	1139	810204.1570175		

SOURCE	DF	SUM OF SQUARES	F VALUE	PR > F
SEX	1	2108.81596206	3.00	0.0834
AGE	1	4592.97525889	6.54*	0.0107*
SEX x AGE	1	3960.03846189	5.64*	0.0177*

The analysis of variance on variable WM showed that there is a significant SEX by AGE interaction, main effect AGE was significant, main effect SEX was nearly significant.

Table 14: Age by sex mean values

		Age 0	Age 1	
Sex	0	58,86	58,55	58,71
	1	59,92	51,77	56,78
		59,57	54,56	

The interpretation of the significant interaction is as follows: In the male students' group (sex = 0) the work methods means' difference is small, i.e 58,86 - 58,55 = 0,31.

In contrast the work methods means' difference for the female students' group (sex = 1) is large, for example 59,92 - 51,77 = 8,15. The question is whether the 'contrast' of mean difference 0,31 - 8,15 is significantly different from zero.

The effect of Age by Sex = 1 (female students' group), i.e. (59,92 - 51,77) is compared with the effect AGE by SEX = 0 (male students' group), i.e. (58,86 - 58,55). The fact that this contrast is significant implies that there is indeed an AGE effect, but it is different in the two SEX groups.

However, it should be noted that all of the significant effects are due to the group SEX = 1 (female students' group), AGE = 1 (students' aged $\geq$ 21) which has a considerably lower mean value than the other three groups whose means do not differ significantly from each other, this can be checked simply by noting that the standard error of each of the means is at least 25,872 / $\sqrt{448}$ = 1,222.

The 'main effect' SEX is not significant, 'main effect' AGE is significant; P = 0,0107. Table 14 shows that the mean values are greater at AGE = 0 than at AGE = 1.

Male and female students aged 20 and below tended to have higher scores on work methods than students aged 21 and above.

Of the four students' subgroups the female groups aged 21 and above obtained the lowest score on work methods (WM) subscale.

4.2.3 Study Habits (SH)

Table 15: Study Habits mean values

SOURCE	DF	SUM OF SQUARES	F VALUE	PR > F
Source	3	7063.04344677	3.47	0.0156
Error	1136	769706.75567604		
Corrected Total	1139	776769.79912281		

SOURCE	DF	SUM OF SQUARES	F VALUE	PR > F
SEX	1	95.05945585	0.14	0.7081
AGE	1	375.61195639	0.55	0.4567
SEX x AGE	1	5493.27330916	8.11*	0.0045*

The analysis of variance on variable SH showed that there is a significant sex by age interaction, main effects sex and age were not significant.

Table 16: Age by Sex mean values

		Age 0	Age 1	
Sex	0	58,18	61,59	59,82
	1	62,19	56,37	59,95
		60,90	58,52	

The interpretation of the significant interaction is as follows: In the students' male group (N = 411) the study habits mean scores (58,18 to 61,59) increased with age, whilst in the female students' group (N = 729) the study habits mean scores (62,19 to 56,37) decreased with age. This means that in the male students' group (sex = 0) the difference in study habits means is 58,18 - 61,59 = -3,41, at sex = 1 (female students' group) the study habits difference in means is 62,19 - 56,37 = 5,82. The question is whether the 'contrast' 5,82 - (-3,41) is significantly different from zero.

The effect of AGE by SEX = 1 (female students' group), i.e. 62,19 - 56,37 is compared with the effect of AGE by SEX = 0 (male students' group), i.e. 58,18 - 61,59.

The fact that this contrast is significant implies that there is indeed an AGE effect, but it is different in the two SEX groups. The SEX = 1 (female students' group), aged $\geq$ 21 (AGE = 1) has a lower mean score, unlike in group SEX = 0 (male students' group), aged $\geq$ 21 (AGE = 1) which has a higher mean score.

Thus male students aged above and equal to 21 tended to have higher mean scores than those aged below and equal to 20 on the study habits subscale.

On the other hand female students aged below and equal to 20 tended to have higher mean scores than those aged above and equal to 21 on the study habits subscale.

There is a significant SEX x AGE interaction, showing that the effect of AGE (SEX) is different at the two levels of SEX (AGE) variables. The AGE effect is not only different for the two sexes, but it is also of opposite sign. The overall effect is that the main effects are not significant.

The main effect SEX is not significant, main effect AGE is also not significant. Table 16 shows that the average mean value at AGE = 0 is greater than at AGE = 1.

4.2.4 Teacher Approval (TA)

Table 17: Teacher Approval

SOURCE	DF	SUM OF SQUARES	F VALUE	PR > F
Model	3	1623.82770576	0.78	0.5044
Error	1136	786881.06615389		
Corrected Total	1139	788594.89385965		

SOURCE	DF	SUM OF SQUARES	F VALUE	PR > F
SEX	1	617.66979502	0.89	0.3452
AGE	1	61.82060076	0.09	0.7652
SEX x AGE	1	568.38853556	0.82	0.3652

The analysis of variance on variable, TA, indicated that there is no significant difference between the mean values of the four subgroups.

Table 18: Age by Sex mean values

		Age		
		0	**1**	
Sex	0	38,36	39,36	38,84
	1	41,40	39,42	40,64
		40,42	39,40	

There are no significant differences between students of different ages and sexes as measured by the Teacher Approval subscale.

4.2.5 Education Acceptance (EA)

Table 19: Education Acceptance

SOURCE	DF	SUM OF SQUARES	F VALUE	PR > F
Model	3	9627.38505798	4.30	0.0050
Error	1136	847315.50880167		
Corrected Total	1139	856942.89385965		

SOURCE	DF	SUM OF SQUARES	F VALUE	PR > F
SEX	1	365.46183442	0.49	0.4841
AGE	1	5804.60693903	7.78*	0.0054*
SEX x AGE	1	1046.26640027	1.40	0.2365

The analysis of variance on variable EA showed that there is a significant AGE effect, the other effects, i.e. SEX, and SEX by AGE interaction were not significant.

Table 20: Age by Sex mean values

		Age		
		0	**1**	
Sex	0	49,10	46,37	47,79
	1	52,31	45,54	49,70
		51,27	45,88	

Male students aged below and equal to 20 tended to have higher mean scores than those aged ≥ 21 on the education acceptance subscale.

Female students aged below and equal to 20 also tended to have higher mean scores than those aged above and equal to 20 on the education acceptance subscale.

The 'main effect' SEX is not significant, 'main effect' AGE is significant; P = 0,0054. Table 20 shows that the mean values are greater at AGE = 0 than at AGE = 1.

4.2.6 Study Attitude (SA)

Table 21: Study Attitude

SOURCE	DF	SUM OF SQUARES	F VALUE	PR > F
Model	3	4245.64065421	2.05	0.1048
Error	1136	783090.55583702		
Corrected Total	1139	787336.19649123		

SOURCE	DF	SUM OF SQUARES	F VALUE	PR > F
SEX	1	362.21890895	0.53	0.4687
AGE	1	1763.37746521	2.56	0.1100
SEX x AGE	1	877.93801492	1.27	0.2593

The analysis of variance on variable SA showed that there is no significant difference between the mean values of the four subgroups.

Table 22: Age by SEX mean values

		Age 0	Age 1	
Sex	0	43,66	42,89	43,29
	1	46,69	42,23	44,97
		45,71	42,50	

The 'main effect' SEX is not significant, 'main effect' AGE is also not significant. The mean values at AGE = 0 are greater than at AGE = 1.

4.2.7 Study Orientation (SO)

Table 23: Study Orientation

SOURCE	DF	SUM OF SQUARES	F VALUE	PR > F
Model	3	5600.26905543	2.64	0.0482
Error	1136	803321.55901475		
Corrected Total	1139	808921.82807018		

SOURCE	DF	SUM OF SQUARES	F VALUE	PR > F
SEX	1	4.22587699	0.01	0.9384
AGE	1	1049.66848152	1,48	0.2233
SEX x AGE	1	3184.94185371	4.50*	0.0340*

The analysis of the variance on variable SO showed that there is a significant SEX by AGE interaction, main effects SEX and AGE were not significant.

Table 24: Age by Sex mean values

		Age		
		0	**1**	
Sex	0	51,13	52,62	51,84
	1	54,52	48,98	52,38
		53,42	50,48	

The interpretation of the significant interaction is as follows: In the male students group (SEX = 0) the study orientation means difference is 51,13 - 52,62 = -1,49.

In the female students group (SEX = 1) the study orientation means difference is 54,52 - 48,98 = 5,54. The question is whether the 'contrast' of mean differences 5,54 - (-1,49) is significantly different from zero.

The effect of AGE on SEX = 1 (female students group), i.e. (54,52 - 48,98) is compared with the effect of AGE on SEX = 0 (male students group), i.e. (51,13 - 52,62).

The fact that this contrast is significant implies that there is indeed an AGE effect, but it is different in the two SEX groups. The SEX = 1 female students group aged $\geq$ 21 (AGE = 1) has a lower mean score, unlike in group SEX = 0 (male students group), aged $\geq$ 21 (AGE = 1) which has a higher mean score.

There is a significant SEX x AGE interaction, showing that the effect of AGE (SEX) is different at the two levels of SEX (AGE) variables. In this case it happens that the AGE effect is not only different for the two sexes, but it is also of opposite sign. The overall effect is that the main effects are not significant.

The 'main effect' SEX is not significant, main effect AGE is also not significant. Table 24 shows that the average mean value at AGE = 0 is greater than at AGE = 1.

4.3 STATISTICAL INTERPRETATION OF RESULTS OF T-TESTS

With reference to Tables 8 and 9 the null-hypothesis H_0 was rejected in 5 of the 7 subscales tested (DA, WM, SH, EA, and SO). In four of the subscales (DA, WM, SH & SO) the SEX x AGE interaction was significant, indicating sex differences are not identical in the two age groups. For example at SEX = 0 (male students) the difference in delay avoidance mean scores is 60,97 - 55,12 = 5,82 at SEX = 1 (female students group) the delay avoidance difference in mean scores is 58,28 - 60,23 = -2,34 (see Table 11).

However, in two of the subscales there were no significant differences between students of different sexes and ages with regard to study habits and attitudes as measured by the teacher approval and study attitudes subscales at the 5% level of significance.

On the basis of the above evidence one can conclude that there are significant differences between students of different sexes and ages with regard to study habits and attitudes as measured by five of the seven subscales of the SSHA, i.e. delay avoidance (DA), work methods (WM), study habits (SH), education acceptance (EA), and study orientation (SO).

Students below and equal to 20 years tended to have greater mean scores in work methods, study habits, education acceptance, study attitude and study orientation subscales when compared with students aged above and equal to 21 years. The null hypothesis was not rejected in the case of teacher approval and study attitude subscales.

4.4 ENVIRONMENTAL CIRCUMSTANCES (See appendix B)

Table 25: Influence of environment

	SF	HC	WP	ST	SL
SEX	0,23	0,00*	0,00*	0,04*	0,08
AGE	0,33	0,33	0,00*	0,02	0,00*

Table 25 indicates P values derived from chi-square tests showing the level of significance of factors SEX and AGE with respect to the five environmental aspects, i.e. school facilities (SF), home circumstances (HC), willingness of parents (WP), study time (ST) and school library (SL).

With reference to Table 25 the null-hypothesis (H_o) was rejected in 4 of the 5 aspects tested, i.e. HC, WP, ST and SL. Thus in 4 out of 5 of the aspects there were significant differences between students of different sexes and ages as measured by HC, WP, ST and SL.

However, in one of the aspects there is no significant difference between students of different sexes or ages as measured by the SF aspect.

4.4.1 School study facilities (SF)

Table 26: Utilization of school facilities

SCHOOL FACILITIES					
	USE		DO NOT		TOTAL
	N	%	N	%	
Male students	232	34,63	179	38,09	411
Female students	438	65,37	291	61,91	729
Students aged ≤ 20	381	56,87	281	59,79	662
Students aged ≥21	289	43,13	189	40,21	478

There were no significant differences in the utilization of school study facilities after school hours by students of the same sex and age who either use or do not use school facilities.

4.4.2 Home circumstances (HC)

Table 27: Influence of home circumstances

	HOME CIRCUMSTANCES								
	LOP		LOSF		NTA		AF		TOTAL
	N	%	N	%	N	%	N	%	
Male students	97	30,89	115	48,52	89	32,12	110	36,30	411
Female students	217	69,11	122	51,48	197	68,88	193	63,70	729
Students aged ≤20	191	60,83	136	57,38	154	53,85	181	59,74	662
Students aged ≥21	123	39,11	101	42,62	132	46,15	122	40,26	478

Key: LOP = Lack of privacy
LOSF = Lack of study facilities
NTA = Nobody to assist
AF = All factors

There were significant differences in the use of home facilities by students of different sexes and ages as measured by availability of home study facilities and privacy. Descriptively 30,89% male and 69,11% female students reported lack of privacy at home concerning their study facilities.

4.4.3 Willingness of parents (WP)

Table 28: Availability of parents

	PARENTAL INVOLVEMENT						
	YES		NO		DO NOT KNOW		TOTAL
	N	%	N	%	N	%	
Male students	272	37,62	93	29,15	46	46,94	411
Female students	451	62,38	226	70,85	52	53,06	729
Students aged ≤ 20	442	61,13	160	50,16	60	61,22	662
Students aged ≥20	281	38,87	159	49,84	38	38,78	478

There were significant differences in willingness of parents to attend school meetings and monitor students' progress. Descriptively 70,85% female students reported that their parents or guardians were not willing to attend school meetings to monitor their scholastic progress.

4.4.4 Study time (ST)

Table 29: Utilizaton of study time

	UTILIZATION OF STUDY TIME										
	Afternoon		Evening		Night		Morning		Not Study		Total
	N	%	N	%	N	%	N	%	N	%	
Male students	72	36,73	248	39,24	74	29,37	9	33,33	8	24,24	411
Female students	124	63,27	384	60,76	178	70,63	18	66,67	25	75,76	729
Students aged ≤20	106	54,08	393	62,18	134	53,17	15	55,56	14	42,42	662
Students aged ≥20	90	45,92	239	37,82	118	46,83	12	44,44	19	57,58	478

There were significant differences in the utilization of study time by students of different ages and sexes. Many of the female students (70,63%) study at night.

4.4.5 School library (SL)

Table 30: Lack of school library facilities

	LACK OF SCHOOL LIBRARY						
	Sufficient		Insufficient		Non-existent		Total
	N	%	N	%	N	%	
Male students	41	28,47	206	38,50	164	35,57	411
Female students	103	71,53	329	61,50	297	64,43	729
Students aged ≤20	86	59,72	339	63,36	237	51,41	662
Students aged ≥20	58	40,28	196	36,64	224	48,59	478

There were significant differences in the availability of school library facilities as reported by students of different sexes and ages. In descriptive terms 63,36% of students aged below and equal to 20 reported that the school library facilities were insufficient.

4.5 EFFECT OF SEX, AGE AND SCHOOL FACTORS

Table 31 shows P values and F statistics resulting from analysis of variance to test the significance of the effects of the factors SEX, AGE and SCHOOL. Throughout the convention of regarding an effect as significant if $P \leq 0.05$ is adopted.

Table 31: P values and F statistics of SEX, AGE and SCHOOL on SSHA subscales

	SS1	SS2	SS3	SS4	SS5	SS6	SS7
	DA	WM	SH	TA	EA	SA	SO
SCHOOL	0,0001* 3,72	0,0001* 4,78	0,0001* 5,01	0,0001* 6,17	0,0001* 4,66	0,0001* 6,50	0,0001* 5,18
SEX	0,0334* 4,54	0,9777 0,00	0,1817 1,79	0,1121 2,53	0,0653 3,40	0,0795 3,08	0,1328 2,26
AGE	0,2065 1,60	0,1837 1,77	0,9624 0,00	0,5534 0,35	0,1103 2,55	0,1921 1,70	0,6069 0,26
SCHOOL x SEX	0,2427 1,31	0,0837 1,80	0,0709 1,87	0,4215 1,01	0,0507 2,01	0,1618 1,50	0,0500 2,02
SCHOOL x AGE	0,7011 0,67	0,9103 0,39	0,8059 0,54	0,5370 0,86	0,0399* 2,11	0,3219 1,16	0,3348 1,14
SEX x AGE	0,0514 3,80	0,0292* 4,77	0,0196* 5,46	0,4505 0,57	0,5477 0,36	0,4124 0,67	0,1070 2,60

* $P \leq 0,05$

In this analysis the effect of factor SCHOOL is considered together with factors SEX and AGE. Table 31 shows the analysis of variance results. The 'main effect' school is highly significant in all the variables SSI (DA) - SS7 (SO). The 'main effect' SCHOOL comprises essentially 7 contrasts.

4.6 RANKING OF THE SCHOOLS ACCORDING TO THEIR MEAN SCORES ON EACH OF THE SEVEN VARIABLES SSI (DA) - SS7 (SO)

Table 32

		SS1		SS2		SS3
Rank	School	DA	School	WM	School	SH
1	8	65,38	8	64,66	8	67,03
2	1	62,65	1	62,74	1	64,63
3	4	62,16	4	60,77	4	63,88
4	5	59,60	7	59,86	7	60,76
5	7	58,54	6	55,89	5	60,35
6	6	57,24	5	54,57	6	57,96
7	2	53,96	2	50,25	2	52,80
8	3	53,57	3	49,26	3	52,15

		SS4		SS5		SS6
Rank	School	TA	School	EA	School	SA
1	8	46,74	8	54,06	8	50,87
2	1	45,32	1	53,75	1	50,56
3	3	44,78	7	53,14	4	49,15
4	4	44,60	4	53,08	3	48,71
5	7	38,32	3	52,98	7	45,49
6	2	38,30	6	44,79	2	39,33
7	5	34,46	5	43,17	6	38,32
8	6	33,07	2	41,35	5	37,40

		SS7
Rank	School	SO
1	8	59,52
2	1	58,46
3	4	57,19
4	7	52,62
5	3	50,46
6	5	49,13
7	6	47,81
8	2	45,55

Table 32 reveals that the ranking order appears to be very consistent. For example schools number 8, 1 and 4 are ranked in the first three positions respectively on variables DA, WM, SH, SA and SO, i.e. on five out of seven variables. However, school number 8 maintained the first position in all the variables, followed in the second place by school number 1.

School number 6 was ranked in most of the variables in the sixth position, followed by schools number 2 and 5 in the seventh rank position.

4.7 SIGNIFICANT DIFFERENCES BETWEEN PAIRS OF SCHOOL MEANS

For variable DA (SS1), Table 33 shows differences of means in the lower triangle of the matrix of tables, and the relevant standard error in the upper triangle. The standard error is calculated as :

$$\sqrt{EMS}\,(1/n_j + 1/n_k)^{1/2}$$

where EMS is 'Error Sum of Squares'/ 'Error DF').

Table 33: Differences of school means and standard errors of variables SS1 (DA) - SS7 (SO)

STANDARD ERRORS

Schools	1	2	3	4	5	6	7	8
1		3,032	3,467	3,171	3,88	2,746	3,218	2,992
2	-8,695		3,22	2,899	3,661	2,428	2,951	2,702
3	-9,087	-0,391		3,351	4,029	2,953	3,396	3,182
4	-0,484	8,211	8,603		3,777	2,599	3,093	2,857
5	-3,049	5,647	6,038	-2,565		3,429	3,817	3,628
6	-5,414	3,281	3,673	-4,93	-2,365		2,657	2,377
7	-4,107	4,588	4,980	-3,623	-1,058	1,307		2,909
8	2,732	11,427	11,819	3,216	5,781	8,146	6,839	

MEAN DIFFERENCES

Table 33 shows differences of school means and standard errors for variables SS1(DA) - SS7(SO). For example the difference between means of school 2 and 8 is 11,427, its standard error is 2,702. The ratio of the difference to the standard error is 11,427 / 2,702 = 4,23. This is a "t" statistic on 1115 degrees of freedom. The result is highly significant.

4.8 RESPONSES OF TEACHERS ON STUDENTS' STUDY SKILLS (SEE APPENDIX C)

The null-hypothesis being tested is that there is no difference between the proportions of teachers responding favourably or unfavourably to questions on students' study skills as regards three aspects: subject groups, sex and school. For the purpose of this study the focus is on seven of the thirty two questions because they are pertinent to the interpretation of study habits and attitudes.

Table 34: P values of factors subject group, sex and school

Table 34 of P values derived from Fishers' Exact Test (2-Tail) relate to the seven questions on students' study skills with reference to subject group, sex and the school.

	QUESTIONS						
	LPE 8	**DSR 10**	**DAT 11**	**DUR 13**	**LEV 17**	**PTS 23**	**PNI 32**
Subject group	0,434	0,219	0,602	0,136	0,841	0,249	0,308
Sex	1,000	0,593	0,106	1,000	1,000	1,000	0,536
School	0,902	0,792	0,810	0,900	0,504	0,934	0,512

LPE = Lack of personal effort
DSR = Don't study regularly
DAT = Don't ask teachers
DUR = Don't use resources
LEV = Limited English vocabulary
PTS = Poor thinking skills
PNI = Parents not involved

Table 35: Subject group based responses to question 8

STUDENTS LACK PERSONAL EFFORT					
	SOME		MOST		
SUBJECT GROUP	FREQUENCY	PERCENTAGE	FREQUENCY	PERCENTAGE	TOTAL
1	8	29.63	19	70.37	27
2	3	17.65	14	82.35	17
3	4	40.00	6	60.00	10
4	3	37.50	5	62.50	8
5	5	45.45	6	54.55	11
6	3	60.00	2	40.00	5
Total	26		52		78

Lack of personal effort (LPE), Question 8

Although in subject group 2 (Geography, Biblical Studies and History) 82,35% teachers expressed that students lack personal effort concerning their studies, and only 17,65 teachers in this category expressed feelings to the contrary, the differences between subject groups are not significant. With reference to the P values provided in Table 34, the P-value relevant is 0,434. The null-hypothesis with regard to question 8 is not rejected, which has to do with students' lack of personal effort (LPE).

Table 36: Sex based responses to question 8

	SOME		MOST		
	Frequency	**Percentage**	**Frequency**	**Percentage**	**Total**
Male	16	32.65	33	67.35	49
Female	10	34.48	19	65.52	29
Totaal	26		52		78

With reference to Table 36 of the teachers' group (N = 78), although 67,35% male teachers and 65,52% female teachers expressed that the students lack personal effort concerning their studies, the differences between the sex groups are not significant. The P value relevant in Table 34 is 1,000. The null-hypotheses with regard to the effect of sex on question 8 is not rejected.

Table 37: School based responses to question 8

	SOME		MOST		
School	**Frequency**	**Percentage**	**Frequency**	**Percentage**	**Total**
1	4	50.00	4	50.00	8
2	2	28.57	5	71.43	7
3	2	28.57	5	71.43	7
4	4	26.67	11	73.33	15
5	4	44.44	5	55.56	9
6	4	40.00	6	60.00	10
7	4	33.33	8	66.67	12
8	2	20.00	8	80.00	10
Totaal	26		52		78

In school number 8, as reflected in Table 37, 80% of class and subject teachers were of opinion that students made little personal efforts to study, although 20% of these teachers expressed opposite opinions. The overall statistics for all the schools are not significant. The P value relevant in Table 34 is 0,902. The null-hypothesis with regard to the effect of the subject group on question 8 is not rejected.

Table 38: Subject group based responses to question 10

STUDENTS DO NOT STUDY REGULARLY					
	SOME		MOST		
Subject Group	Frequency	Percentage	Frequency	Percentage	Total
1	5	18.52	22	81.48	27
2	4	23.53	13	76.47	17
3	6	60.00	4	40.00	10
4	1	12.50	7	87.50	8
5	3	27.27	8	72.73	11
6	1	20.00	4	80.00	5
Total	20		58		78

Athough in Subject Group 4 (Economics, Accounting, Business Economics) 87,50% teachers expressed that students do not study regularly, and only 12,50% teachers in this category expressed feelings to the contrary, the differences between subject groups are not significant. The P value provided in Table 34 is 0,219. The null-hypothesis with regard to the effect of the subject group on question 10 is not rejected.

Table 39: Sex based responses to question 10

	SOME		MOST		
	Fequency	Percentage	Frequency	Percentage	Total
Male	14	28.57	35	71.43	49
Female	6	20.69	23	79.31	29
Total	20		58		78

Of the teachers group (N = 78), although 79,31% female teachers and 71,43% male teachers expressed that students do not study regularly, the differences between sex groups are not significant. The P value provided in Table 34 is 0,593. The null-hypothesis with regard to the effect of the sex group on question 10 is not rejected.

Table 40: School based responses to question 10

	SOME		MOST		
School	Frequency	Percentage	Frequency	Percentage	Total
1	3	37.50	5	62.50	8
2	1	14.29	6	85.71	7
3	1	14.29	6	85.71	7
4	4	26.67	11	73.33	15
5	3	33.33	6	66.67	9
6	4	40.00	6	60.00	10
7	3	25.00	9	75.00	12
8	1	10.00	9	90.00	10
Total	20		58		78

In schools number 8, 2 & 3, as shown in Table 40, although 90% and 85,71% classroom and subject teachers respectively expressed that students do not study regularly. The overall statistic of all the schools is not significant. Table 34 shows that the relevant P value is 0,792. The null-hypothesis with regard to school effect on question 10 is not rejected.

Table 41: Subject group based responses to question 11

Concerning questions 11, 13, 17, 23 and 32 as indicated by Table 34 the overall statistics of all the schools, sex and subject group are not significant, we therefore fail to reject the null-hypothesis. However, the tables of teachers' responses are as follows:

STUDENTS DO NOT ASK TEACHERS QUESTIONS					
	SOME		MOST		
Subject Group	Frequency	Percentage	Frequency	Percentage	Total
1	6	22.22	21	77.78	27
2	5	29.41	12	70.59	17
3	4	40.00	6	60.00	10
4	2	25.00	6	75.00	8
5	1	9.09	10	90.91	11
6	2	40.00	3	60.00	5
Total	20		58		78

Table 42: Sex based responses to question 11

	SOME		MOST		
Sex	Frequency	Percentage	Frequency	Percentage	Total
0	16	32.65	33	67.35	49
1	4	13.79	25	86.21	29
Total	20		58		78

Table 43: School based responses to question 11

	SOME		MOST		
School	Frequency	Percentage	Frequency	Percentage	Total
1	3	37.50	5	62.50	8
2	3	42.86	4	57.14	7
3	2	28.57	5	71.43	7
4	3	20.00	12	80.00	15
5	3	33.33	6	66.67	9
6	1	10.00	9	90.00	10
7	3	25.00	9	75.00	12
8	2	20.00	8	80.00	10
Total	20		58		78

Table 44: Subject group based responses to question 13

STUDENTS DO NOT USE RESOURCES					
	SOME		MOST		
Subject Group	Frequency	Percentage	Frequency	Percentage	Total
1	2	7.41	25	92.59	27
2	2	11.76	15	88.24	17
3	4	40.00	6	60.00	10
4	0	0.00	8	100.00	8
5	1	9.09	10	90.91	11
6	0	0.00	5	100.00	5
Total	9		69		78

Table 45: Sex based responses to question 13

	SOME		MOST		
Sex	Frequency	Percentage	Frequency	Percentage	Total
Male	6	12.24	43	87.76	49
Female	3	10.34	26	89.66	29
Total	9		69		78

Table 46: School based responses to question 13

	SOME		MOST		
School	Frequency	Percentage	Frequency	Percentage	Total
1	1	12.50	7	87.50	8
2	1	14.29	6	85.71	7
3	0	0.00	7	100.00	7
4	1	6.67	14	93.33	15
5	2	22.22	7	77.78	9
6	1	10.00	9	90.00	10
7	1	8.33	11	91.67	12
8	2	20.00	8	80.00	10
Total	9		69		78

Table 47: Subject group based responses to question 17

STUDENTS HAVE LIMITED ENGLISH VOCABULARY					
	SOME		MOST		
Subject Group	Frequency	Precentage	Frequency	Percentage	Total
1	4	14.81	23	85.19	27
2	1	5.88	16	94.12	17
3	2	20.00	8	80.00	10
4	1	12.50	7	87.50	8
5	2	18.18	9	81.82	11
6	1	20.00	4	80.00	5
Total	11		67		78

Table 48: Sex based responses to question 17

	SOME		MOST		
Sex	Frequency	Percentage	Frequency	Percentage	Total
Male	7	14.29	42	85.71	49
Female	4	13.79	25	86.21	29
Total	11		67		78

Table 49: School based responses to question 17

	SOME		MOST		
School	Frequency	Percentage	Frequency	Percentage	Total
1	0	0.00	8	100.00	8
2	2	28.57	5	71.43	7
3	0	0.00	7	100.00	7
4	1	6.67	14	93.33	15
4	2	22.22	7	77.78	9
6	2	20.00	8	80.00	10
7	3	25.00	9	75.00	12
8	1	10.00	9	90.00	10
Total	11		67		78

Table 50: Subject group based responses to question 23

STUDENTS HAVE POOR THINKING SKILLS					
	SOME		MOST		
Subject Group	Frequency	Percentage	Frequency	Percentage	Total
1	8	29.63	19	70.37	27
2	6	35.29	11	64.71	17
3	2	20.00	8	80.00	10
4	6	75.00	2	25.00	8
5	4	36.36	7	63.64	11
6	2	40.00	3	60.00	5
Total	28		50		78

Table 51: Sex based responses to question 23

	SOME		MOST		
Sex	Frequency	Percentage	Frequency	Percentage	Total
Male	18	36.73	31	63.27	49
Female	10	34.48	19	65.52	29
Total	28		50		78

Table 52: School based responses to question 23

	SOME		MOST		
School	Frequency	Percentage	Frequency	Percentage	Total
1	2	25.00	6	75.00	8
2	4	57.14	3	42.86	7
3	3	42.86	4	57.14	7
4	5	33.33	10	66.67	15
5	4	44.44	5	55.56	9
6	3	30.00	7	70.00	10
7	4	33.33	8	66.67	12
8	3	30.00	7	70.00	10
Total	28		50		78

Table 53: Subject group based responses to question 32

PARENTS' UNINVOLVEMENT IN STUDENTS EDUCATION					
	SOME		MOST		
Subject Group	Frequency	Percentage	Frequency	Percentage	Total
1	6	22.22	21	77.78	27
2	1	5.88	16	94.12	17
3	2	20.00	8	80.00	10
4	0	0.00	8	100.00	8
5	2	18.18	9	81.82	11
6	2	40.00	3	60.00	5
Total	13		65		78

Table 54: Sex based responses to question 32

	SOME		MOST		
Sex	Frequency	Percentage	Frequency	Percentage	Total
Male	7	14.29	42	85.71	49
Female	6	20.69	23	79.31	29
Total	13		65		78

Table 55: School based responses to question 32

	SOME		MOST		
School	Frequency	Percentage	Frequency	Percentage	Total
1	1	12.50	7	87.50	8
2	0	0.00	7	100.00	7
3	1	14.29	6	85.71	7
4	2	13.33	13	86.67	15
5	1	11.11	8	88.89	9
6	2	20.00	8	80.00	10
7	5	41.67	7	58.33	12
8	1	10.00	9	90.00	10
Total	13		65		78

4.9 SUMMARY OF THE FINDINGS

The findings of the survey of 1140 students are presented in Table 8. The hypothesis is tested on each of the seven subscales of the Survey of Study Habits and Attitudes (SSHA) questionnaire, i.e. delay avoidance, work methods, study habits, teacher acceptance, education acceptance, study attitudes and study orientation.

There are significant differences and the null hypothesis is rejected in five out of the seven SSHA subscales, i.e. delay avoidance, work methods, study habits, education acceptance, and study orientation (see Table 56, Appendix A). The significant SEX x AGE interaction, shows that the effect of AGE (SEX) is different at the two levels of SEX(AGE) variables. The main effects AGE and SEX are not significant. However, the results are inconsistent, and male and female students scored differently.

The null hypothesis was not rejected in the case of teacher approval and study attitude subscales of the SSHA questionnaire. All the students' mean scores were below the 50th percentile on the teacher approval subscale, the same with the study attitude mean scores with the exception of two schools which were slightly above the 50th percentile (see Table 32). A significant number of students externalize their motives and they have negative study habits and attitudes. Students aged below and equal to 20 years tended to have greater mean scores in work methods, study habits, education acceptance, study attitude and study orientation subscales when compared with students who are aged above and equal to 21 years. However, students aged below and equal to 20 years tended to have lower mean scores in delay avoidance and teacher approval subscales when compared with students aged above and equal to 21 years.

On the Students' Environmental Circumstances Questionnaire there are significant differences and the null hypothesis is rejected in four of the five aspects investigated, i.e. home conditions, willingness of parents, study time and school library facilities (see Table 25). The null hypothesis on Study Skills questionnaire was not rejected.

The overall results indicate clear differences in the effects of study habits and attitudes on students of different sexes and ages as measured by five of the seven SSHA subscales.

CHAPTER 5

DISCUSSION, CONCLUSIONS, RECOMMENDATIONS AND LIMITATIONS

5.1 INTRODUCTION

This research represents one of the few reported investigations on the study habits and attitudes of black South African students. The results provide data on black South African's study habits for comparisons with normative data found in the manual of the SSHA. These data may help further the use of the SSHA. The study can be used to help guidance teachers, educators, counselors and psychologists to analyse black South African students' study habits and attitudes in order to guide their learning.

5.2 DISCUSSION, CONCLUSIONS AND RECOMMENDATIONS

5.2.1 Teacher ratings

This study has indicated that poor study habits and poor study attitudes in senior secondary schools among students of both sexes and of different ages are related to teacher ratings on students' study skills, lack of personal effort, lack of motivation, negative attitudes and ineffective work habits. This calls for directed learning where the learners' social and study environment could be incorporated in order to enhance cognitive development

Students aged below and equal to 20 years tended to achieve lower mean scores in delay avoidance and teacher approval subscales when compared with students aged above and equal to 21 years. A significant number of students externalize their motives and have negative study habits and attitudes.

Preventative measures whereby students are exposed on a daily basis to effective study method programmes should be introduced in schools. This plan should be implemented by all the subject teachers and should be enforced by allocating a specific time-slot in the class timetable. This could be done either at the beginning or at the end of each lesson and the time for each period should vary at least between 9 - 12 minutes. Alternatively, the study method programmes could be made an integral part of the curriculum.

5.2.2 Low pass-rate

According to Louw (1992), the reason for the alarmingly low pass-rate can be attributed to political problems, poor teacher training, inadequate facilities, overcrowding, inappropriate curricula, and the absence of role models. The researcher is of opinion that our school syllabi should be restructured to teach among other subjects coping and life skills. Ellis (in Louw, 1992:8) said, "... the challenge is to make the understanding real, not something memorized, and to make the history and literature come alive as a statement of mankind's frailty, humanity and courage. This is to be done primarily by relating issues and themes to everyday reality and their future livelihood; emphasizing that learning is to do with each person's life and how it can best be lived. To introduce such teaching methods on a widespread basis is an essential part of the aim of the envisaged curriculum reform".

Co-operative group work could be used to motivate learners and to promote mastery and retention of new information. This could be achieved by involving peer group interaction.

Flexible, unorthodox, motivating teaching methods to suit the learners' needs and their learning styles should be used by the teachers so that they can serve the individual needs of all the learners.

5.2.3 Poverty

Edward de Bono (in Louw, 1992), says that poverty is not only economic, but also psychological. He states that if people do not have expectations and they feel they cannot make decisions, they will also feel that they cannot accomplish things, and will therefore just drift along. When he taught learners thinking, they developed greater self-esteem. They believed they could think about things, make decisions and find alternatives. The need to maintain a positive self-image is a powerful motivator. Once learners believe that they are capable and intelligent they will try to satisfy themselvea in achievement situations.

The curriculum will therefore have to make provision for the participation and involvement of students in the decision-making process as part of the teacher-learner relationship which is based on sound educational principles.

5.2.4 Teacher approval

The results of the present study provide for a difference between students of different sexes and ages on the attributes being investigated. In fact, from a stastistically significant viewpoint the results appear to be highly significant. According to F-tests, significant subgroup effects, i.e. either main effects or interactions, were found in five of the seven variables. The significant difference on DA (Delay Avoidance), WM (Work Methods), SH (Study Habits), SO (Study Orientation) and EA (Education Acceptance) subscales for students of different sexes and ages is consistent with findings of other research on students' study habits and attitudes.

The analysis of variance on variable TA, as shown in Tables 17 and 18, indicate that there is no significant difference between the mean values of the four subgroups. The two sex groups have similar, and not significantly different mean values (38,84; 40,64). Also, the two age groups have similar, and not significantly different means (40,42; 39,40). However, these mean values are below-average. When compared with the

normative data on the SSHA manual where the cut-off point is the 50th percentile norm, the below-average scores on the TA subscale of SSHA indicate that the students had poor perceptions of teachers, their classroom behaviour and teaching methods. This has a detrimental effect on learners' academic achievement as it negatively affects their attitudes and study habits.

This perception of teachers' classroom behaviour and teaching methods have to be addressed in the school by the teaching staff members, because the negative influences of such attitudes have a negative effect on both teachers and students if it is not eliminated. Sound interpersonal relationships should at all times be maintained between learners and teachers and this should be based on mutual respect, equality and trust.

5.2.5 Adult influence

There is a shift of adult influence from the home, school and neighbourhood, to peers as a reference group. The reference group with which adolescent learners identify, influences the study habits, attitudes and academic development of learners. Adolescent learners use the reference group as a standard to judge the appropriateness of their behaviour.

Adolescence is a critical period in attitude development. Adolescent learners are caught in a conflict between identification with the role of the child from which they are emerging, and the role of the adult which they are beginning to assume (a conflict they resolve by greater involvement in peer group activities). It is difficult for adolescent learners to appreciate the views of adults whose reference point is a previous generation. Adolescent learners find it difficult to deny the acceptability of attitudes held by their peer groups. During adolescence some attitudes become more stable and others change.

Many attitudes develop and are tested in the informal groups of childhood. Eventually the adolescent learner commits himself to living up to standards implied by these attitudes.

Teachers have the opportunity to influence attitude development through working with adolescent learners in groups within and outside the regular classroom. Special consideration in this regard could be given to role playing, films, discussions and group decision-making. Informal groups are important sources of information, reinforcement and emotional release. Through interaction and by sharing common experiences with peers, the learners gain clarity and they learn about co-operation, competition, social skills and values.

5.2.6 Parents' role during child development

According to this study's research findings a significant number of parents are not actively involved in their children's education.

Table 28 shows that 226 female students, out of a total of 729, reported that their parents were not willing to visit the school and monitor their school progress. Tradition has a role to play, because in the past parents did not encourage girls to go to school. Parents did not invest in their daughters' education. They maintained that girls will leave their homes once they are married.

Feelings expressed by the students were endorsed by the teachers, as reflected in Table 55. In the male teachers group ($N = 49$), 85,71% stated that parents were not involved in the education of their children. The differences between the sex groups were not significant.

Parents should therefore be fully informed on their influence during the early years of child development as well as during adolescence. Parent groups should be formed and informed by educationists and counsellors on the best possible way to bring up and educate children and adolescents in a developing urbanized area such as Khayelitsha. This could also be done by utilizing the infra-structure that is available at the schools, such as the panel for identification, diagnosis and assistance of the child (PIDA), or the

teacher support teams and the school clinic, during primary and secondary school years. Successful learners establish objectives, goals, and aspirations early in life. Parents should establish a dialogue with their children so that their interests could be focused on their studies.

5.2.7 Adolescent learners' independence

According to Table 42, 86,21% of female teachers and 67,35% of male teachers are of opinion that students do not ask questions, and do not use available resources. This revealed a lack of motivation and negative attitudes on the part of students. The study has shown that students aged above and equal to 21 years tended to achieve lower mean scores in education acceptance subscale when compared with students aged below and equal to 20 years (see Table 20). A significant number of students lack motivation and they have not accepted the scholastic aims and above all they do not see the value of education. The adolescent learner, according to Kagan and Lang (1978), does not accept the teacher's word, but instead demands to know the connection between schoolwork and his personal agenda. He needs to have a concrete reason for investing effort. Adolescent learners match their behaviour to the standards of independence and autonomy promoted by society. They prefer to regard themselves as independent, free from the need of praise and support from teachers.

Various kinds of assignments, which can include formal and informal group work activities, should be utilized to promote and encourage interaction in school. Extramural activities should be introduced by non-academic adults, for example parents or community members, who should create ways and means of meaningfully involving adolescent learners during their leisure time.

5.2.8 Adolescent learner's ego structure

It is in the nature of the student's ego structure, not to accept school failure as personal weakness. Instead, the adolescent learner is forced into the position of attributing lack of

success to environmental factors such as the teachers or the school, and this serves to block future learning. In repeated school failures when such personal defenses break down, strong feelings of insecurity and inferiority may ensue. This results in low self-esteem, and the learners might feel that they are not loved and they might become demotivated to seek for knowledge and understanding. The subject content should have enough intrinsic incentive value as that the learners could see education and study as relevant and interesting in its own right.

5.2.9 Positive influences to school work

A teacher can influence an adolescent learner's motivation in many ways. Teachers, according to Kagan and Lang (1978), should get to know their students well enough so that they can identify the hierarchy of motives each one has. This is an important requirement of every teachers' classroom management strategy and should be fully utilized. It is therefore necessary that teachers should be informed about the best ways to motivate the developing black adolescent in the urban areas. Incentives that could be used by the teacher amongst other things include clarity, immediacy of feedback, frequency of assessment, values and availability of rewards.

Attitudes are are more easily changed by group processes. The adolescent learner may readily accept values of his peer group, while rejecting those of the teacher. Undirected discussions of social issues may be more effective than instructions given by adults.

Adolescent learners are more apt to accept attitudes which they believe to be the result of their own thinking, their original ideas. Skillful leading of group discussions by teachers, or planning for information seeking in the community offers opportunities for adolescent learners to make discoveries, which they will readily accept. Community centred schools could be introduced to make the development and change of attitudes a project shared jointly by teachers and parents. The adolescent learner is more inclined to retain community fostered values than those propagated in the classroom. It is for these reasons that the researcher strongly supports Vygotsky's ideas of the maintainance of

authentic dialogue through real human communication brought about by reciprocal relationships between the learner and the teacher.

When group discussions are handled sensitively, they provide valuable opportunities for adolescent learners to explore their own attitudes and value systems against the background of the group. Thus the adolescent learner's positive self-concept ensures and enhances peer group acceptance, as well as strong adherence to the school with all that it entails.

5.2.10 Lack of school library facilities

With reference to Table 25, representing P values, the null-hypothesis of the school library aspect was rejected. There were significant differences between students of different sexes and ages with regard to the utilization of school library facilities.

Table 30, shows that 206 male students (N = 411) and 329 female students (N = 729) reported that library facilities were insufficient at their schools.

Library facilities should be made available to all students. These include radio, television, movies, books, newspapers, magazines, pamphlets, billboards, lectures and any means which will facilitate communication with groups of students. Visual and audio-visual media has a substantial influence on adolescent learners' attitudes, values and daily behaviour. The library is the centre of academic discipline and educational programmes.

Students who make use of visual and audio-visual media are likely to perform better in language tests and examinations, especially with the current emphasis on good communication skills.

5.2.11 Effective education strategies

Below average scores, as shown in Table 20 (Education Acceptance Subscale) indicate that the extent to which senior secondary learners have accepted educational ideals, objectives, practices and requirements, is still inadequate and needs improvement. Effective education strategies and materials, as postulated by Feuerstein, Vygotsky and Ellis, could be introduced so as to improve students' acceptance of cognitive learning. Teachers, according to Feuerstein et al. (1980:16), should mediate the world to adolescent learners by intentionally transforming, selecting, framing, grouping and segregating stimuli, thus providing the adolescent learner with modalities for organizing his world. According to Vygotsky (1979:132), emphasis is laid upon the teacher to involve the community in the development of cognition of adolescent learners. This is of course coupled with directed learning whereby the adolescent learner is given practical learning experience to enable him to internalize the learning experience.

5.2.12 Students' reasons for ineffective study habits

In the survey, as reflected in Table 27, students reported that interrelated extraneous variables, such as lack of privacy when studying, lack of study facilities at home, and unavailability of somebody at home to assist them when studying, contributed to their ineffective study habits and negative attitudes. Of the aspects surveyed in rank order, 197 female students reported that they had nobody to assist them at home, whilst of the male students 115 reported lack of study facilities at home. The student's level of motivation is the barometer of the student's level of academic performance. Slavin (1991:318) says, "All is for naught if students do not want to learn."

Success at school depends largely on the degree of a student's motivation. Facilities are essential, but its abscence cannot prevent the enthusiasm and dedication of a goal-directed and highly motivated student. The school building could be used as a study centre for those students who do not have home study facilities. This could bring about organizational, administrative and financial problems. Use could be made of volunteer

parent bodies who could supervise during study time. This will help to alleviate the teachers' burden.

According to the subject and classroom teachers, as indicated in Table 36, students' ineffective study skills are attributable to students' lack of personal effort and motivation. This statement was supported by 67,35% and 65,52% male and female teachers respectively, although the differences between the sex groups were not significant.

Co-operation and competion are valid motivators in the hands of a skilled teacher especially when the competition can be modified to become self-competition. This will help to promote the acquisition of social motives such as independence, affiliation and the desire for approval.

5.2.13 Below average scores on Study Attitude subscale (SA)

Below average scores on the Study Attitude (SA) scale are further indicators that these students need help to enhance their confidence in scholastic aims.

High achieving students as a group and by gender were found to have positive study habits and study attitudes. High achievers had positive study attitudes. Study habits were significantly different by age and sex. Study attitudes were positive for higher achievers. Study attitudes appeared to influence achievement. Data analysis found that achievement was associated with student age, gender, and environmental circumstances.

The P value of the subject groups (Economics, Accountancy and Business Economics) provided in Table 34, is 0,219. Therefore the null-hypothesis with regard to the effect of the subject group is not rejected.

Students' study times vary, as indicated in Table 29. In the male student group (N = 411), 248 students study in the evening, and 8 students did not study at all, because of unfavourable home conditions. In the female student group (N = 729) 384 students study

in the evening, and 25 students do not study at all, also due to unfavourable home conditions. Goal-orientated students under any conditions make time for studying.

5.2.14 Panel for Identification, Diagnosis and Assistance (PIDA)

Teacher support teams and the Panel for Identification, Diagnosis and Assistance (PIDA) should be introduced in all the schools. This will help with the identification of students' problems at an early stage. The task of the PIDA system or Teachers' Support Teams is to draw up support programmes for cases referred to them, or to make referrals to outside agencies if the panel is unable to handle the referred cases. All teachers should eventually become involved with the students' support system, and aspire to have at the school a multidisciplinary consultation support team, comprising of specialists and people who are interested in children's development. In and out schools' inter-sectoral or multidisciplinary teams could also be established with the purpose of giving care to caregivers.

Purkey (1970) sums up the key conclusions by saying that there is a significant and positive relationship between a student's concept of himself and his performance in school. Students who feel good about themselves and their abilities are the ones most likely to succeed.

5.2.15 Adolescent learner's immediate educational needs

The schools should, first and foremost, serve the immediate educational needs of adolescent learners, as they reconceptualize adolescent learners from receivers of information to active, empowered decision-making learners.

As indicated in Table 9, in four of the subscales, Delay Avoidance (DA), Work Methods (WM), Study Habits (SH) and Study Orientation (SO), the sex by age interaction was significant, indicating that sex differences are not identical in the two age groups. In

subscales Work Methods (WM) and Education Acceptance (EA) the main effect age was significant, showing that achievement was associated with age.

Other studies, according to Purkey (1970), have pointed to the value of attitudes toward the self in prediction of future performance in school. Benjamins, (in Purkey, 1970), reported that when the individual's self is influenced, changed or threatened, it is reflected in his overt behaviour. Barret, in his study of gifted children (in Purkey, 1970), reported that feelings of inadequacy among bright underachievers act as depressors which cause them to withdraw and refuse to compete. The conclusion seems unavoidable, according to Purkey (1970), because a student carries with him certain attitudes about himself and his abilities which play a primary role in how he performs in school. Yet, according to Purkey, the opposite is also true, in that scholastic performance has a great impact on self-concept.

Every school in Khayelitsha should adopt the promotion of study habits and attitudes as a clearly stated goal, integrated into the curriculum and informing all of its policies and operations. The school management councils and schools should establish policies and procedures that value staff-members and serve to foster mutual respect, esteem and co-operation. In-service training courses on study habits and attitudes should be arranged for both students and educators. A life-skills integrated curriculum, whereby study habits and attitudes are woven into the educational programmes, should be introduced in schools.

Classroom strategies to be used, according to Slavin (1991:354), are co-operative learning, outcome-based instruction and confluent education. Learners work in mixed-ability groups and cooperate with one another to learn academic materials.

One avenue for enhancing academic achievement involves school climate. A positive school climate may be described as a sound relationship among the forces that comprise the school setting, namely the students, teachers, parents and administrators, together with those members of the general community who support the school. The need

therefore exists for school leaders to guide all members of the school community in giving special attention to these forces.

5.3 LIMITATIONS

The limitation of this study, caused by political instability during the research period in the junior classes, is that the survey of students' study habits and attitudes was conducted only with standard 10 (Grade 12) students. One needs to apply the survey at an earlier stage, for example at standard 6 level (Grade 8), especially if parent guidance, counselling, early identification of study problems, and students' effective study programmes are to be addressed, formulated, designed and implemented with the target population.

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APPENDIX A

GENERAL LINEAR MODELS PROCEDURE

TABLE 56: ANALYSIS OF VARIANCE SUMMARIES

Delay Avoidance: SS1

SOURCE	DF	SUM OF SQUARES	F VALUE	PR > F
Model	3	5314.74807360	2.86	0.0359
Error	1136	703894.45894394		
Corrected Total	1139	709209.20701754		

SOURCE	DF	SUM OF SQUARES	F VALUE	PR > F
SEX	1	517.16773540	0.83	0.3611
AGE	1	795.09687718	1.28	0.2575
SEX*AGE	1	4316.76890732	6.97*	0.0084*

Work Methods: SS2

SOURCE	DF	SUM OF SQUARES	F VALUE	PR > F
Model	3	12454.2161179	5.91	0.0005
Error	1136	797749.9408997		
Corrected Total	1139	810204.1570175		

SOURCE	DF	SUM OF SQUARES	F VALUE	PR > F
SEX	1	2108.81596206	3.00	0.0834
AGE	1	4592.97525889	6.54*	0.0107*
SEX*AGE	1	3960.03846189	5.64*	0.0177*

Study Habits: SS3

SOURCE	DF	SUM OF SQUARES	F VALUE	PR > F
Source	3	7063.04344677	3.47	0.0156
Error	1136	769706.75567604		
Corrected Total	1139	776769.79912281		

SOURCE	DF	SUM OF SQUARES	F VALUE	PR > F
SEX	1	95.05945585	0.14	0.7081
AGE	1	375.61195639	0.55	0.4567
SEX*AGE	1	5493.27330916	8.11*	0.0045*

Teacher Acceptance: SS4

SOURCE	DF	SUM OF SQUARES	F VALUE	PR > F
Model	3	1623.82770576	0.78	0.5044
Error	1136	786881.06615389		
Corrected Total	1139	788594.89385965		

SOURCE	DF	SUM OF SQUARES	F VALUE	PR > F
SEX	1	617.66979502	0.89	0.3452
AGE	1	61.82060076	0.09	0.7652
SEX*AGE	1	568.38853556	0.82	0.3652

Education Acceptance: SS5

SOURCE	DF	SUM OF SQUARES	F VALUE	PR > F
Model	3	9627.38505798	4.30	0.0050
Error	1136	847315.50880167		
Corrected Total	1139	856942.89385965		

SOURCE	DF	SUM OF SQUARES	F VALUE	PR > F
SEX	1	365.46183442	0.49	0.4841
AGE	1	5804.60693903	7.78*	0.0054*
SEX*AGE	1	1046.26640027	1.40	0.2365

Study Attitude: SS6

SOURCE	DF	SUM OF SQUARES	F VALUE	PR > F
Model	3	4245.64065421	2.05	0.1048
Error	1136	783090.55583702		
Corrected Total	1139	787336.19649123		

SOURCE	DF	SUM OF SQUARES	F VALUE	PR > F
SEX	1	362.21890895	0.53	0.4687
AGE	1	1763.37746521	2.56	0.1100
SEX*AGE	1	877.93801492	1.27	0.2593

Study Orientation: SS7

SOURCE	DF	SUM OF SQUARES	F VALUE	PR > F
Model	3	5600.26905543	2.64	0.0482
Error	1136	803321.55901475		
Corrected Total	1139	808921.82807018		

SOURCE	DF	SUM OF SQUARES	F VALUE	PR > F
SEX	1	4.22587699	0.01	0.9384
AGE	1	1049.66848152	1,48	0.2233
SEX*AGE	1	3184.94185371	4.50*	0.0340*

APPENDIX B

STUDENTS' RECORD OF ENVIRONMENTAL CIRCUMSTANCES

NAME: _____

1. SCHOOL : [ ]

2. SEX :

Male	Female

3. AGE : [ ] [ ]
(Completed years)

B. QUESTIONNAIRE FOR STANDARD 10 STUDENTS

Please indicate your response with an X in the appropriate space.

FOR OFFICE USE

4. Do you use school facilities for study after school hours?

YES	NO
0	1

5. When you study at home what is the biggest problem you experience? [ ] [ ]

1. Lack of privacy	2. Lack of study facilities	
3. Nobody to assist you	4. All of the above	5. None of the above

6. Are your parents or guardians willing to come to school to attend school meetings and to monitor your school progress? [ ] [ ]

0. YES	1. NO	2. Do not know

7. At what time do you usually study?

1. Afternoon 14:00 - 18:00	2. Evening 18:00 - 22:00	3. At night 22:00 - 05:00	[ ] [ ]
4. In the morning 05:00 - 08:00	5. Do not study		

8. Library facilities at school are ... [ ] [ ]

1. Sufficient	2. Insufficient	3. Non-existent

9. Which school stubject gives you the most problems? [ ] [ ]

_____

APPENDIX C

SUBJECTS AND CLASSROOM TEACHERS' RECORD ON STUDENTS STUDY SKILLS

STUDY SKILLS FOR SECONDARY SCHOOL STUDENTS

QUESTIONNAIRE FOR STANDARD TEN SUBJECT AND CLASS TEACHER

	Day	Month	Year
Date of birth			19

Sex	0	Male	1	Female

Subject(s) offered in Std 10: 1. _____ 2. _____

3. _____

FOR OFFICE USE

Please indicate your response with an X in the appropriate space.

		0 SOME	1 MOST
1.	Students generally have a negative attitude towards school.		
2.	Students have a negative attitude towards their studies.		
3.	Students have a negative attitude towards their teachers.		
4.	Students have a poor understanding of the purpose of education.		
5.	Students lack motivation.		
6.	Students are inattentive.		
7.	Students have negative self-confidence.		
8.	Students lack personal effort concerning their studies.		
9.	Students are not doing their homework regularly.		
10.	Students do not study regularly.		
11.	Students do not ask the teachers to help them with their studies.		

	0 SOME	1 MOST
12. Students are absent from school regularly.		
13. Students do not use resources, eg. library, dictionaries, etc.		
14. Students postpone studying for tests and examinations until too late.		
15. Students have poor reading skills.		
16. Students experience difficulty in understanding subject contents.		
17. Students have limited English vocabulary.		
18. Students have limited Afrikaans vocabulary.		
19. Students have poor listening skills		
20. Students have poor writing skills.		
21. Students have poor concentration skills.		
22. Students have poor memory skills.		
23. Students have poor thinking skills.		
24. Students have poor planning skills.		
25. Students are unable to study independently/on their own.		
26. Students have low self-discipline.		
27. Students have poor knowledge of making and using summaries		
28. Students have poor study facilities at home.		
29. Students have insufficient stationery, eg. pencil and writing paper.		

	0 SOME	1 MOST
30. Students do not have all their text books.		
31. Students have poor knowledge of how to handle the writing of tests/examinations.		
32. Students' parents are not involved in their children's education		